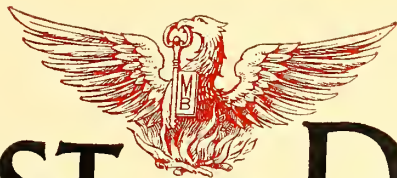


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28 Essex Street, Strand, London, W.C.2

Registered as a Newspaper

No. 3054
VOL. CXXIX

AUGUST 20, 1938

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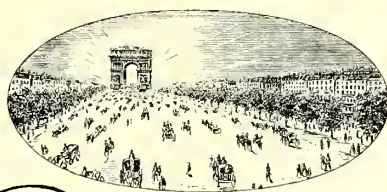
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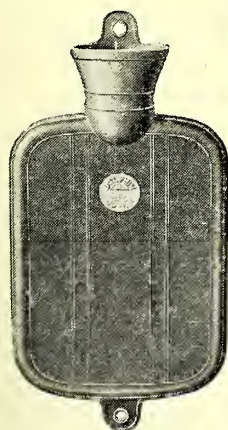
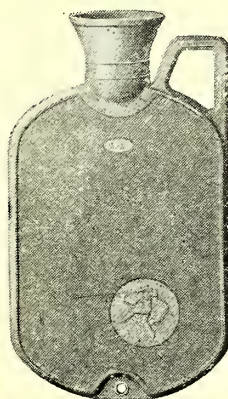
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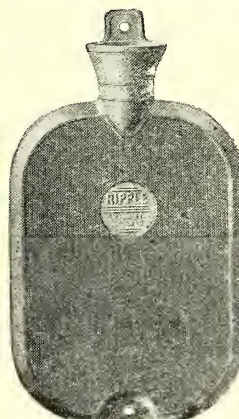
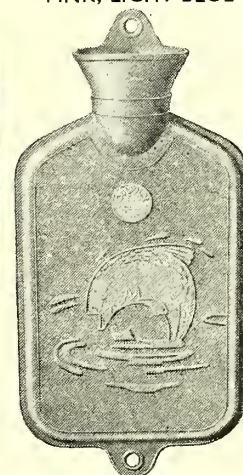
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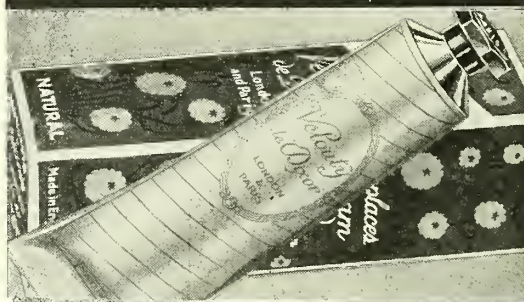
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OUR C·O·B METHOD
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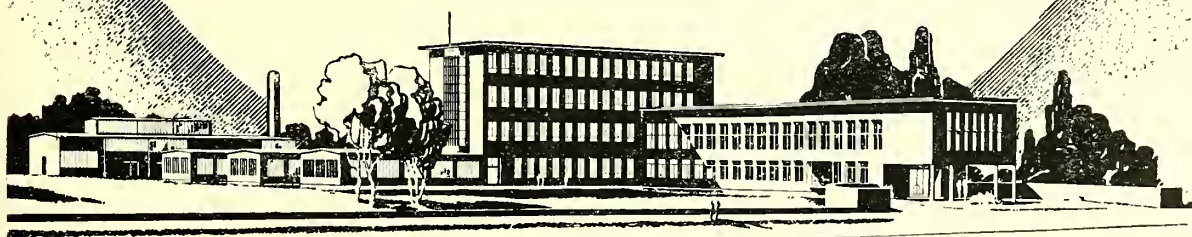
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Regd.

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regular
demand!*

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THE *Family* SHAMPOO

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GLASGOW ...	ST. ENOCH HOTEL ...	...	AUG. 22nd-26th
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SEAMED & SEAMLESS

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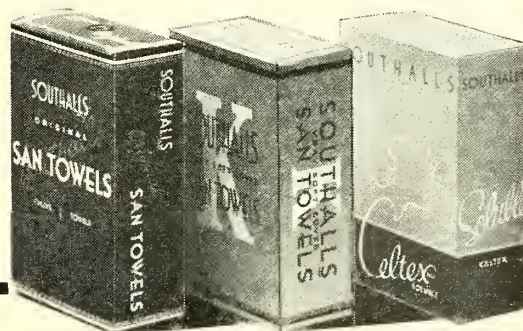


. . . a plain brown
paper parcel **READY
WRAPPED** (*with carrying string*)
FOR THE CUSTOMER



ALL THE RANGE IN ATTRACTIVE CARTONS

All Southalls San Towels—The
“Original,” “K,” and “Celtex,”
are now wrapped inside the
cartons.





A DELICIOUS SWEETENED AND FLAVOURED JUNKET FOR THE SICKROOM AND TABLE.

ADD CONTENTS TO A PINT OF WARM MILK STIR GENTLY AND ALLOW TO COOL.

**A PRODUCT TO
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(ARMOUR AND COMPANY LTD.)

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MOSANS
Non-Greasy, Odourless
QUININE PESSARIES
15/- per doz. boxes

CAPSULES D'ENERGIE
Gland Rejuvenate with Glycerophos. Co.
22/- and 40/- per dozen boxes

Obtainable from all Wholesalers

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(on turnover)

through your wholesaler

on

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flea ARE YOU,
CTENOCEPHALUS CANIS?



NO WISE BREEDER but deals promptly with a scratching dog, for a single dog flea can carry up to 20 embryo tapeworms, waiting their chance to involve you in endless trouble and expense. Eliminate this risk of worms—87% of tapeworm infections are due to dog fleas—and the other risks as well, simply by following the

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COOPER'S VERMIN POWDER | **COOPER'S VITAMIN RATION** | **COOPER'S LIQUID WORM REMEDY**
6d. and 1/3 sprinkler tins | 1/6, 2/9, and 4/6 | Small dogs 1/3, larger dogs 2/6 bottles
FROM ALL CHEMISTS AND DOG SHOPS

COOPER, McDOUGALL & ROBERTSON LIMITED, BERKHAMSTED, HERTS

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6d. and 1/3 sprinkler tins

COOPER'S VITAMIN RATION

1/6, 2/9, and 4/6

COOPER'S LIQUID WORM REMEDY

Small dogs 1/3, larger dogs 2/6 bottles

TRADE TERMS—less 33½% and less 5% cash monthly

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Rexall CHEMISTS

in Great Britain and Ireland, and some 8,000 more spread over various parts of the English-speaking world.

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Stands for Four Things Mainly

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2. Skill in Manufacture.
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Quality goods, a substantial profit for the Chemist, fixed prices and the certain knowledge that the Rexall Preparations will only be available for sale by retail Chemists, explain why the Rexall business continues to expand every year.

Enquiries from districts not covered by a Rexall Agency will receive every attention.

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NOTTINGHAM**



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the new self-adhesive bandage

Show Prestoband—and sell Prestoband. No one who has struggled to tie up a cut finger can resist the miraculous ease and neatness with which Prestoband goes on and stays on. Prestoband prices will appeal to all pockets (3d., 6d. and 9d.) and Prestoband profits will appeal to you. Imitations have already appeared, but there is only one Prestoband, which is our registered Trade Mark.

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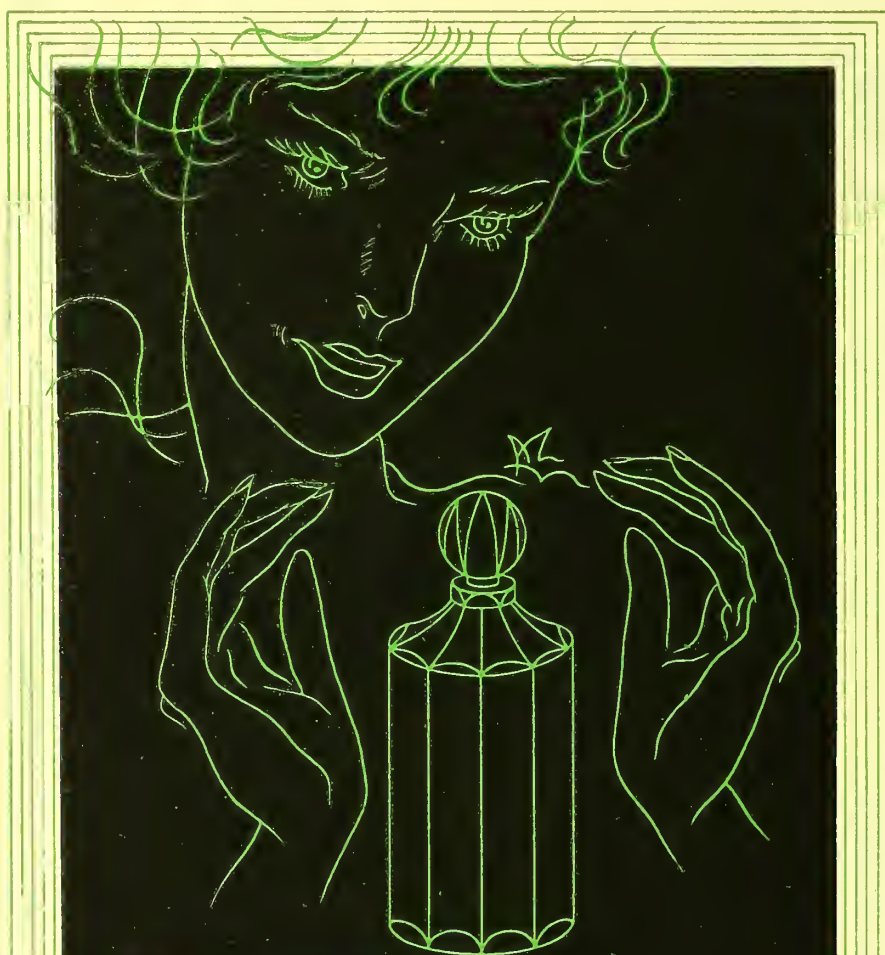
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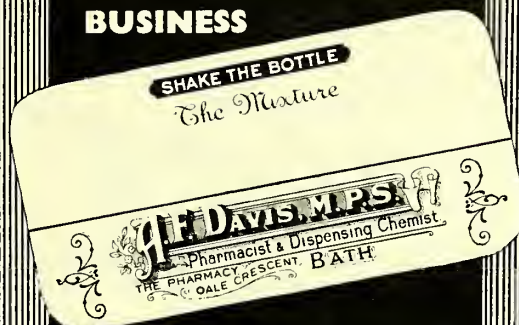
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Bile and Liver	Kidney and Bladder
Bile and Stomach	Liver
(Black)	Nerve
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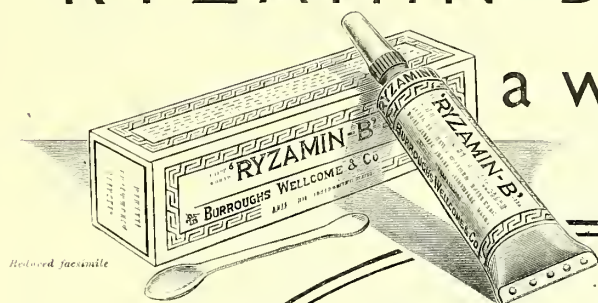
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The official organ of The Pharmaceutical Society of Ireland, The Pharmaceutical Society of Northern Ireland, The Chemists' and Druggists' Society of Ireland, and of other Chemists' Societies in Overseas Dominions

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AMSTERDAM-C. HOLLAND: PLANTAGE FRANSCHELAAN 32

News of the Week

Business Changes

JEWELLS, LTD., chemists, Liverpool, are shortly opening a branch pharmacy, 203 London Road.

MR. W. H. PESKETT, M.P.S., has taken over the business of Mr. W. J. V. Fowden, M.P.S., 68 Christchurch Road, Reading.

Factories (Saturday Exception) Regulations

Draft Regulations have been issued (H.M. Stationery Office, 1d.) by which it is proposed to grant an exception, authorising the occupier of certain factories to substitute some other day for Saturday as the short day. Among the factories concerned are those in which the business is carried on in connexion with a retail shop on or immediately adjoining the factory premises, and factories in which is carried on the developing and printing of photographs. Where some other day is substituted for Saturday in respect of some only of the women and young persons employed in the factory, then either—

- (i) the notice under section 97 of the Act shall give the names of the women and young persons in respect of whom such substitution is made; or
- (ii) the said notice shall specify the classes or sets of persons in respect of whom such substitution is made, and, if the Inspector for the District so requires, there shall be kept posted in the factory, adjacent to the said notice, lists showing the names of the women and young persons in each such class or set.

London

INSURANCE STATISTICS.—Comparative statistics relating to National Health Insurance in London are given in the following table:—

Year	Insured Persons	Prescriptions	Frequency	Average Cost per Prescription
				d.
1934	1,786,500	8,482,787	4.75	7.79
1935	1,765,402	8,561,492	4.85	7.82
1936	1,803,832	8,996,825	4.99	7.91
1937	1,857,183	9,050,324	4.87	8.06

MEDICAL OFFICER'S REPORT.—In the annual report on the work of the Medical Officer of Health's department of the City of London for 1937, it is shown that during the year 1,007 samples of foods and drugs were analysed, of which 759 were taken informally and 248 formally. Of the 105 samples of drugs procured for analysis, four were reported against, and in two instances, where legal action was not justified, the vendors were communicated with. Legal pro-

ceedings, however, were taken in one case, regarding tincture of iodine purchased at a shop where hygienic and toilet goods were sold, and where an informal sample previously purchased had been reported against. The sample was deficient in iodine to the extent of 22.4 per cent. and potassium iodide to 24.8 per cent. of the amount that it should contain by the requirements of the British Pharmacopoeia. The retailer, who was summoned for selling tincture of iodine which was not of the nature, substance or quality of the article demanded, successfully proved a warranty given by his supplier. The latter was summoned, and was fined £2. Provision was made some years ago for the distribution of diphtheria antitoxin free of charge to medical practitioners who apply for it. Only two applications were received during 1937. Similar provision is made in regard to anti-influenza vaccine, but no application was received during the year. Under the powers provided by the Public Health (London) Act, 1936, the corporation have, at the request of the authorities of the University College hospital, supplied, at regular intervals, insulin to one patient resident in the City and in attendance at that hospital. This is the first patient, so far as I am aware, in regard to whom such powers have been put into operation in the City, and the provision has been continuous since 1930. Live rat catching by skilled workers is still considered to be the most suitable and hygienic method of extermination for use in the City area, and for this reason is recommended in the majority of instances. The guarding and removal of waste food, water, and nesting facilities, which must form part of any rat-proofing campaign, is obviously the duty of occupiers of property, and its introduction is continually recommended and demanded by the officers of the department.

Miscellaneous

BURGLARY.—The premises of Mr. G. H. Goodwin, M.P.S., Spondon, who is also sub-postmaster, were broken into recently. A quantity of goods and a sum of money were stolen.

GOLF COMPETITION.—The annual competition for the Griffiths Hughes prize was played by members of the Manchester and District Chemists' Golfing Society, at Prestbury Golf Club on August 10. As usual, it was against bogey, and the prize was won by Mr. J. W. Aves. Mr. S. M. Bostock and Mr. T. Miller tied for the second prize.

PROTEST AGAINST CLINIC TRADING.—Birkenhead Retail Traders' Association, on behalf of the chemists' section, has lodged with the local Health Committee a protest against the alleged unfair competition of Corporation clinics in selling chemical goods at trade prices. It is hoped to secure a readjustment of the regulations whereby clinics will not compete against retailers.

CONTENTS

See p. 193

Irish Notes

Miscellaneous

SIR THOMAS ROBINSON, M.C.P.S.I., Dublin, recently gave an address entitled "Ireland, Yesterday and To-day," to the Rotary Club at Nottingham.

IRISH DRUG ASSOCIATION.—At a meeting of the committee of the Irish Drug Association held on August 8, Mr. P. A. Brady (President) in the chair, attention was directed to the P.A.T.A. retailers' conditions and the Association's rules, and it was stated that to give discount of any description on articles on the Protected List in respect of retail transactions is a breach of the rules. No discount, the Committee emphasised, should be allowed in respect of monthly or any accounts, and a receipted statement which showed discount will be sufficient evidence to have supplies stopped. Members were accordingly advised to discontinue such practices. It was decided to communicate with the Irish Union of Distributive Workers and Clerks—Chemists' Branch, pointing out the slack manner in which the agreement between the Union and the Association was being carried out by the Union, particularly with regard to closing hours in the Greater Dublin Area. In a long discussion members were advised not to accept the retail or wholesale price from any one particular wholesale house as correct.

Scottish Notes

Miscellaneous

CHRISTMAS SUNDRIES.—Butler & Crispe, Ltd., are arranging a display of Christmas sundries, under the supervision of Mr. J. Bell, at the Grand Hotel, Glasgow, from September 3 to 17, for the convenience of chemists visiting the Empire Exhibition.

LANARKSHIRE DOCTORS' PRESCRIBING.—In a report upon an investigation into the prescribing of medical practitioners under agreement with the Lanarkshire County Insurance Committee for the year to December 31, 1937, the Panel Committee of Lanarkshire record their opinion that the prescribing of the large majority of practitioners in the county is "purposeful, practical, and free from extravagant habits." Twenty-two practitioners were asked to explain apparent high costs. Their explanations were received and considered, and two were interviewed and warned to exercise more care. Warning letters were sent in a number of other cases. Average costs for the year are:—Per script, 1s. 0.29d.; per person, 1s. 8.34d.; frequency, 1.65. It was considered that, while some doctors showed "expensive habits" or a lack of care in prescribing, involving unnecessary charges on the drug fund, they were not sufficiently serious for further action to be taken.

Imperial and Foreign News

Canada

DRUGGISTS AND AN AGRICULTURAL PEST.—Pharmacists in Canada have been notified by the Department of Entomology, Ontario Agricultural College, of measures recommended in dealing with "army worm," a crop pest causing much concern to Ontario farmers. The following formula is given of a poison bait stated to be effective in most cases: Bran, 25 lb.; Paris green, 1 lb.; cheap molasses, $\frac{1}{2}$ gall.; water, sufficient to moisten. The bait is scattered on the ground.

CONFERENCE ON APPRENTICESHIP.—The first conference of Canadian professors of pharmacy took place during the recent annual Convention of the Canadian Pharmaceutical Association. Exchanges of view took place on the desirability of apprenticeship, its length, nature, sequence in pharmaceutical training, terms and the duties of those responsible for training. It was agreed that the conference should become a regular event at Conventions of the Association.

Cuba

PRICE CONTROL.—The Government of Cuba is to control the price of medicinal products in that country under a decree conferring price-regulatory powers on the Secretary of Commerce; authority is given for fixing wholesale and retail prices of pharmaceutical specialties, surgical dressings, doctors' prescriptions, medicinal products in less than package quantities, and orthopaedic and optical articles. The decree came into operation on July 26.

Czechoslovakia

MEDICINAL PLANTS CONGRESS.—Under the auspices of the International Federation for the development of the Production, Utilisation and Commerce of Medicinal, Aromatic and Allied plants, the eleventh international congress will be held at Prague from September 15 to 17. The Bureau of the Federation proposes the following subjects:—(1) Standardisation of medicinal species; (2) action of fertilisers on quality and yields; (3) study of exotic drugs, production, composition and utilisation; (4) for the duration of the Congress, a display of the drugs and ancient books of the nations who are members of the Federation. Studies on standardisation have already been prepared in Austria, Hungary, Germany and the Netherlands; some of these have been the subject of preliminary discussions. Up to the present the International Federation has limited its programme to the study of European and Mediterranean drugs. It has been suggested that it should extend its studies to include exotic drugs. Any communication concerning the origin, composition, cultivation and action of medicinal, aromatic and allied plants should be addressed to the

Congress, accompanied by a Summary, which will be printed and distributed. The Czechoslovakian committee intends to organise an exhibition of vegetable drugs and their derivatives and ancient books; excursions to the districts where these drugs are produced are to be arranged. Full information may be obtained from M. le Professeur Dr. Ed. Skarnitzl, Korunni třída 162, Prague XII.

South Africa

HERBALIST'S APPEAL DISMISSED.—An appeal in the Pretoria Supreme Court recently by Noel Blumden, a Johannesburg herbalist, against a sentence of £1 fine or one month's imprisonment, passed by the Johannesburg magistrate in respect of a charge of performing acts pertaining to the calling of a chemist while not a registered chemist, was dismissed.

DANGEROUS DRUGS IN SOUTH AFRICA.—Medical practitioners in South Africa deny allegations brought by several prominent chemists and druggists in the Union that they are largely responsible for the indiscriminate use of drugs as sleeping draughts and narcotics. Recently a group of medical men condemned the increasing use of dangerous drugs as sleeping draughts, and emphasised the need for alterations in the law. Chemists point out that the doctors, by making their prescriptions legible to patients, are largely responsible for the state of affairs they are condemning. Any patient who derives benefit from a certain narcotic, they state, is not slow to tell friends and relations of its powers, with the result that they in turn go to the chemist for the drug.

United States

MINIMUM EQUIPMENT FOR PHARMACIES.—Pharmacists desirous of registering premises in the State of Minnesota must satisfy the authorities that they possess the following (minimum) equipment:—U.S.P., XI; National Formulary, VI; prescription scale capable of weighing 1 gr. or less; set of apothecary weights, $\frac{1}{2}$ gr. to 2 dr.; set of metric weights, 50 mg. to 20 gm.; counter scale and weights; graduated measures capable of accurately measuring volumes from one minim to at least one pint and from 1 c.c. to at least 500 c.c.; at least one glass 2 oz., at least one glass 8 oz., and at least one earthenware one-pint size mortars; three stainless steel spatulas of assorted sizes, and one non-metallic spatula of medium size; one 2 oz., one 8 oz., and one 16 oz. glass funnels; at least one each glass and vulcanite stirring rods; pill tile or ointment slab; tripod and Bunsen burner, or alcohol lamp, or gas or electric hot plate; prescription counter with sufficient drawers and storage space, dangerous drug locker, and refrigerator storage for biological preparations; sink with running water and proper sewage disposal.

British Pharmaceutical Conference

THE following papers have been received for communication to the Edinburgh meeting of the British Pharmaceutical Conference and will be read at the Science Sessions on Tuesday and Thursday, September 13 and 15:—

- (1) Phases of Pharmacy in Edinburgh: An Historical Sketch. By J. P. Gilmour.
- (2) The Action of Strychnine on Bordeaux B. By D. B. Dott, Ph.C., F.I.C.
- (3) The Vacuum Drying of Extracts. By H. Berry, B.Sc., A.I.C., Ph.C., and E. M. Temple, B.Sc.
- (4) A Note on the Keeping Properties of Ointment of Phenol. By G. R. Page, B.Sc., A.I.C., Ph.C.
- (5) A Colorimetric Estimation of Nicotinic Acid as Applied to Commercial Liver Extracts. By G. E. Shaw, B.Sc., Dip. Bact., and C. A. MacDonald, B.Sc., F.I.C.
- (6) The Enzyme Papain and its Value in the Preparation of Some Pharmaceutical Products. By A. F. Watson, Ph.D., D.Sc., F.I.C., R. A. Taggart, B.Sc., and H. F. Mannion.
- (7) The Preparation of Pituitary Posterior Lobe Powder. By H. Gartside, B.Sc., Ph.C., J. Pritchard and F. E. Rymill, B.Sc., A.I.C.
- (8) The Preparation of Alkaline Buffered Solutions of Procaine Hydrochloride for Surgical Use. By Kenneth Bullock, Ph.D., M.Sc., F.I.C., Ph.C.
- (9) The Assay of Strong Ointment of Mercuric Nitrate. By G. J. W. Ferrey, B.Sc., A.I.C.
- (10) The Analytical Classification of Fish Liver Oils. VI. The Iodine Value of the Unsaponifiable Matter. By D. C. M. Adamson, A.I.C., Norman Evers, B.Sc., F.I.C., and Wilfred Smith, B.Sc., F.I.C.
- (11) The Thalleioquin Reaction as a Qualitative Test for Cinchona. By R. E. Wagg, B.Pharm.
- (12) An Improved Method for the Determination of Total Alkaloids in Cinchona Bark. By Noel L. Allport, F.I.C., and David Friend.

- (13) The Determination of Mersalylum, B.P. By C. E. Waterhouse, Ph.C., A.I.C.
- (14) An Iodimetric Method for the Determination of Iron in Easton's Syrup and Parrish's Syrup. By J. C. Penman, Ph.C., and T. H. Hopper.
- (15) Some Factors in the Action of Light on Bismuth Carbonate, Part I. By Norman Glass, A.I.C.
- (16) The British Pharmacopœia Test for Readily Carbonisable Substances: I. Phenacetin. By J. L. Pinder, B.Sc., A.I.C., and P. F. R. Venables, B.Sc., Ph.D., A.I.C.
- (17) The Assay of Plaster of Belladonna. By W. T. Wing, Ph.C.
- (18) Liquor Eastonii Pro Syrup. By A. J. Jones, Ph.C., A.I.C.
- (19) The Preparation and Keeping Properties of Tabellae Sodii Bicarbonatis Compositae B.P.C. and Tabellae Zingiberis Compositae B.P.C. By H. Burlinson, Ph.C.
- (20) The Assay of Thyroid on Tadpoles. By Frank Wokes, B.Sc., F.I.C., Ph.C.
- (21) Sodium Morrhuate: The Deterioration on Storage and the Preparation of Solutions. By G. W. G. Smithers, Ph.C.
- (22) The Preparation of Lysol. By J. Jackson, B.Sc.
- (23) The Determination of the Blood-Clotting Activity of Thrombin Surgical Dressings. By R. Maxwell Savage, B.A., F.I.C., and W. P. Chambers.
- (24) Experiments on the Heat Sterilisation of Surgical Dressings in High Frequency Electric Fields. By R. Maxwell Savage, B.A., F.I.C.
- (25) Magnesium Carbonate and Magnesium Oxide. Their Preparation, Composition, Impurities and Uses. By J. S. F. Gard, B.Sc., A.I.C.
- (26) A Further Investigation of Dry Extract of Stramonium. By R. C. Kaye, B.Pharm., and A. T. Moorhouse, B.Pharm., Ph.C.

Topical Reflections

By Xrayser

A Conspectus of Education

Your Educational Number contains, as every year, stimulating discussions of topical problems in addition to the pages of systematised information which prospective entrants into pharmacy have found of value for a long time past. Your editorial article (p. 153) is, it seems to me, linked in a subtle way with the two pages (143-44) headed "Under Five Pharmacopœias," each throwing light on the other and providing the educationist with material for thought. Writing from the point of view of a student who had as his "bible" the 1867 British Pharmacopœia, "Senex" justly observes (and "Diogenes" incidentally confirms the observation) that "the apprentices of those bygone days had to apply themselves energetically to acquire some knowledge of the examination subjects before they sought the assistance of such teachers as were available." In the latter part of the nineteenth century several retail chemists were men registered as "in business before August 1, 1868:" they were, as a rule, excellent practical pharmacists and neat dispensers, but scholastic learning was not their strong point. There was a time when, as an experienced teacher remarked in my hearing, keen students "couldn't help passing" the Minor examination; but the two Boards of Examiners "reformed that indifferently," and I do not suppose that for the past half-century or so anyone has found the ordeal too light.

In the Examination Room

The writer of the fifth of the articles referred to in my previous paragraph suggests that "the standard set in this examination [Part I] must be unreasonably difficult;" that in the Chemist and Druggist Qualifying examination "the candidate with a first-class memory and a rather weak intelligence still stands a better chance than the one with a first-class intelligence and poor memory"; and that in practical tests in sterility "if there is an accident . . . the whole period is ruined."

These are serious criticisms: coming, as they do, from a pharmacist who has lately qualified they will, I trust, be given due weight by those primarily interested. One "significant" feature adduced in your editorial article has not, apparently, attracted much attention hitherto: "the Board also prescribed that before re-entry for the examination 128 candidates should undergo a further course of study." What, in terms of time, does this mean? May such candidates re-enter in three months, or is their waiting period to be longer? This, on the face of it, is a formidable addition to the disabilities to which students are liable. You raise a point of the first importance when you ask whether the explanation of the cases of reference being so numerous is that "students are fitted into a localised curriculum rather than that laid down by the Pharmaceutical Council." I am not sufficiently in touch with educational practice to venture an answer to that question.

The Outcome

Abernethy, it is related, was accustomed to begin a course of lectures to students with the remark: "Heaven knows what is to become of you all!" There is, or used to be, a saying in the legal profession to the effect that after qualifying as a barrister or solicitor a student should burn his text-books—an epigrammatic way of conveying that experience of life is as important a factor in one's career as the knowledge imparted in schools. Though Mr. J. G. Wallbridge is nominally writing (p. 154) on "Apprentices and Apprenticeship," his pithy and practical hints reach beyond the date of completing indentures. Shopkeeping, he tells us, "occupies perhaps 75 per cent. of the average chemist's shop time." Again, "the employer who takes an apprentice takes on a considerable responsibility, . . . he has always to be on the *qui vive* to prevent mistakes and accidents." It is not surprising if chemists who have their hands full with the demands of a business that is doing well decline to saddle themselves with the task of breaking in raw youths.

Legal Reports

Application for Injunction.—The *ex parte* injunction granted on August 10 (*C. & D.*, August 13, p. 142) to the plaintiffs on motion in the action *Lanilol, Ltd., v. Tutton*, was mentioned to Mr. Justice Morton in the Vacation Court on August 17. The *ex parte* injunction was to restrain the offering for sale and passing off under the style of Lanilol of an ointment for use on the scalp, and his Lordship gave leave to serve notice of motion for August 17. Mr. James Mould, for the defendant, said he was proposing to make a preparation for curing eczema, but it would not be possible to make it until next year. In the circumstances he was prepared to give an undertaking in the terms of the notice of motion until the trial of the action. Mr. K. E. Shelley, K.C., for the plaintiffs, said he would accept the undertaking. Mr. Justice Morton said upon that undertaking the motion would stand until the trial, and the costs would be reserved.

Alleged Uncompleted Sale.—At Rochdale, on August 10, Leonard Hulton, 6 Halifax Road, Hamer, was summoned for unlawfully selling by retail, tablets containing poison and for not having the container of the tablets labelled in the prescribed manner. Mr. R. S. Clegg, who defended, said the only question that had to be decided was whether or not there had been a sale. The defendant was a laboratory assistant and dispenser for a local doctor and attended to the technical side, but Mrs. Hulton did most of the serving in the business. When a person asked her for a packet of the tablets she commenced to wrap one up, having previously placed the two shilling piece he tendered on the top of the till and taken out a shilling for change. It then occurred to her that she had taken the tablets from a place where goods that had to be returned to the manufacturers were placed, and so she went into the house to ask her husband if she could sell the tablets. The defendant told her she could not and then came into the shop himself. When the defendant told the purchaser that he could not be supplied with the tablets, he replied that he already had the tablets and his change. A long argument then took place and the upshot of this was that Mr. Bannister (the customer) declined to hand back the tablets and the one shilling change in return for the two shilling piece he had tendered. Mr. Clegg submitted that although preparation was made for a sale, a sale was not completed. Fines totalling £2 5s. were imposed.

Trade-Mark Applications

(From "The Trade Marks Journal," August 3, 1938)

- "GERMOPLAST"; for plasters (3). By Veno Drug Co., Ltd., Chester Road, Manchester, 16. 585,204. (Associated.)
- "PRONTEN"; for preparations for the stomach for deodorising the breath (3). By B. Stafford and J. Mosley, 6 Vandon Street, London, S.W.1. 585,337.
- "RITZPRINS"; for medicinal chemicals; "BLACK MAGIC"; for solid laxatives (3). By Edward Hack, 73 High Holborn, London, W.C.1. 585,570/1.
- "TROPADON"; for all goods (3). By Schering, Ltd., 185 High Holborn, London, W.C.1. 586,208.
- "FIBROSAN"; for all goods (3). By John Wyeth & Brother, Ltd., Oldhill Street, London, N.16. 586,495.
- "DYESHA"; for hair dyes (48). By Leo Schlamme, 175 Cornwall Road, London, W.11. 580,884.
- "JEAN"; for perfumed soap (48). By J. A. Gibbons, "Garryduff," Bexton Lane, Bexton, Cheshire. 583,208.
- "MANIQUICK"; for toilet nail preparations (48). By H. C. Miner, Ltd., Brunel Road, London, W.3. 585,427.
- "BRYLMOUSSE"; for shampoos (48). By The County Chemical Co., Ltd., North Circular Road, London, N.W.10. 586,453. (Associated.)

APPLICATION AMENDMENTS

- The specification for "ANALJOL" in Class 2, No. 584,789, by Kaylene, Ltd., has been amended to "Veterinary medicines for animals and poultry."
- The specification for "PEPPRUM" in Class 2, No. B585,125, by W. E. Sowerbutts & Co., has been amended to "Chemical preparations for protecting seeds and plants from vermin, birds and animals."

Company News

P.C. means Private Company and R.O. Registered Office

LIPVAC SALES, LTD. (P.C.).—Capital £100. Objects: To carry on the business of dealers and manufacturers of vacuum flasks, bottles, etc. R.O.: Friars House, Rangoon Street, E.C.3.

M. RINK (FORMERLY ARNOLD RINK), LTD. (P.C.).—Capital £100. Objects: To acquire the business of a merchant of tanning materials carried on by Max Rink at Alder House, 4 Aldersgate Street, E.C.

ORIENTAL PROOFING CO., LTD. (P.C.).—Capital £100. Objects: To carry on business as manufacturers and dealers in chemicals and chemical preparations of all kinds, etc. R.O.: St. Leonards Works, Hancock Road, E.3.

GIBBS & GIBBON, LTD. (P.C.).—Capital £100. Objects: To carry on the business of agents for the sale of explosives, gunpowder, electric and plain detonators, etc., manufactured by Imperial Chemical Industries, Ltd. R.O.: 59 Cambridge Road, King's Heath, Birmingham.

QUADRANT GARDEN HOSE SPRAY, LTD. (P.C.).—Capital £100. Objects: To carry on the business of manufacturers of and dealers in insecticide and fumigating preparations, drugs, chemicals, etc. George R. C. Weese, B.Sc., "Rodholme," Wolsey Road, Moor Park, Herts, scientist, chairman and managing director. R.O.: Quadrant Laboratory, Cumberland Road, Stanmore.

PATTISONS (CHEMISTS), LTD.—At a meeting held in Brighton recently it was resolved that this company be wound up voluntarily. Mr. H. W. King, 1 Brangwyn Way, Brighton, 6, was appointed liquidator.

NURO (BIGGLESWADE), LTD.—At a meeting held recently it was resolved that this company be wound up voluntarily. Mr. F. E. Bendall, 4 Charterhouse Square, London, E.C.1, and Mr. Granville White, 73 Cheapside, London, were appointed liquidators.

WATSONS CHEMISTS (HULL), LTD.—Notice is given in "The London Gazette," August 12, that a meeting of the creditors of the above-named company has been convened at the offices of E. Churchill Mallett & Co., chartered accountants, St. Marys Chambers, Lowgate, Hull.

STEPHEN SMITH & Co., LTD.—The directors recommend payment of a final dividend on the ordinary shares of 7½ per cent., making 12½ per cent. in all. After payment of the dividend, the sum of £4,675 will be carried over to the next account. The meeting will be held on August 24.

BEECHAMS PILLS, LTD.—As announced by the chairman at the annual meeting in May, a scheme for dividing the deferred shares has now been issued, for consideration at a meeting on September 7. The scheme includes a 200 per cent. capital bonus issue of deferred shares to present holders and an issue to the public of 2,400,000 deferred 2s. 6d. shares at a price to be fixed by the directors. Every holder of a 5s. deferred share on the register on August 31 will become the holder of six deferred 2s. 6d. shares.

Voluntary Liquidation

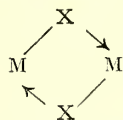
T. Wilson (Chemists), Ltd., Brook Green Road, Hammersmith, London, W.6.—The statutory meeting of the creditors was held recently at Brook Green Road, Hammersmith, W.6, when Mrs. Wilson, a director of the company, occupied the chair. The statement of affairs disclosed liabilities of £420 9s. 7d., all due to unsecured creditors; whilst, after allowing £23 2s. for preferential claims, the net assets were £94 18s. 3d., or a deficiency of £325 11s. 4d. so far as the creditors were concerned. It was reported that the company was incorporated in December 1934 with a nominal capital of £500, and took over an existing business. The premises were held on a lease which was due to expire in December next, the rent being £60 per annum, exclusive. The creditors passed a resolution confirming the voluntary liquidation of the company, with Mr. S. A. V. Wood as liquidator. A committee was also appointed.

British Association

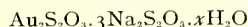
THE following are some of the interesting points taken from the presidential addresses to Sections B, J and K of the British Association for the Advancement of Science meeting at Cambridge, which is being held from August 17 to 24 (see also p. 193). The General Committee of the Association agreed on August 17 to the proposal to establish a new section to deal with the social and international relations of science.

Chemistry of Gold

The presidential address to Section B (Chemistry) by Professor Charles S. Gibson dealt with recent investigations in the chemistry of gold. Recent evidence indicates that aurous gold possesses the 2-covalency of cuprous copper and argentous silver, the halides having the general formula:—

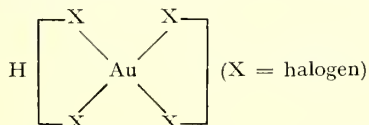


where M=metal and X=halogen. At the present time there is no known example of a 4-covalent aurous compound. The confusion of knowledge regarding the chemistry of gold arises from the fact that simple halide and cyanogen derivatives are regarded as normal metallic salts, and are given the formula $AuCl$, $AuBr$, $AuCN$, $AuCl_3$, $AuBr_3$. This accords univalence or tervalency to the metal which is surprising from the long-established and well-known fact that gold in solution or in the form of a soluble salt is always present as a complex. Sodium aurothiosulphate at the time of its discovery in 1845 was known to give neither the usual reactions for gold nor for thiosulphate. It has long been used for fixing and toning silver photographic prints. Since its introduction in 1924 by Mollgaard for treatment of tuberculosis and extension of such "gold therapy" to rheumatoid arthritis, the compound has been re-investigated. However, as recently as 1937 a standard text book uses the formula



instead of the correct $Na_3[Au(S_2O_3)_2] \cdot 2H_2O$, in which, of course, the aurous gold atom is 2-covalent.

It is only recently that the persistency of the 4-covalency of auric gold in all its compounds had been recognised. The halogenoaurates, which have been fully investigated, have the following constitution:—



In a footnote Professor Gibson calls for a modified nomenclature for certain gold compounds. Thus "auric chloride" may imply hydrochloroauric acid or a neutral (sodium) salt of that acid, or less frequently gold trichloride (trichlorogold). The statement that "auric chloride is soluble in ether" is not true as regards the compound $(AuCl_3)_2$. The hygroscopic nature and solubility of gold trichloride in water is due to the formation of diaquodichloroauric chloride, which undergoes further change in solution to hydrochloroauric acid and aurous chloride (monochlorogold).

The chief advances in the chemistry of gold have been achieved by studying organic derivatives of the metal. The ethyl compounds are typical non-electrolytes with molecular weights corresponding to twice their empirical formula. Acetylacetonediethylgold is the first organic gold compound containing no halogen. Brilliant gold films are obtained from the compound dissolved in ethanol on exposure to light or by warming gently. The monoethyl- and mono-*n*-propyl-dibromo gold compounds are deep red crystalline compounds soluble in solvents not readily brominated or oxidised, but unstable in ether, alcohol, acetone, benzene, ligroin, etc. Chemically the monoalkyldibromogold compounds behave as equimolecular mixtures of gold tribromide and dialkylmonobromogold. The

dialkylmonocyanogold compounds are colourless crystalline non-electrolytes soluble in hydrocarbon solvents, with the interesting feature that their molecular weight in freezing bromoform is four times those required by their empirical formula. These compounds contain four atoms of tervalent gold with the gold atoms attached to the carbon atoms of the cyanogen groups so that the nitrogen atoms must be co-ordinated to neighbouring gold atoms. The structure of gold compounds has been established during the past two years as linear configuration of the two valencies of aurous gold and planar configuration of the four valencies of tervalent gold.

Visual Perception

Dr. R. H. Thouless, in the presidential address to Section J (Psychology) of the British Association meeting at Cambridge, criticised the transmission theory of vision, and pointed out that we see with our brains as well as with our eyes. The physiological mechanism of vision includes not only the sensitive retinal surface, and the visual areas of the cortex, but also the optic nerve, visual area of the cerebral cortex and other sensory areas of the brain as well. An elliptical object (such as an oval table mat) placed with its long axis pointing directly to and from an observer appears elliptical when the head is directly above the object. Lowering the head in the same plane, the elongation becomes apparently smaller and smaller until it looks circular, and then passes to elliptical with the really longer axis apparently the shorter. Measurement of the retinal image when the ellipse appears circular discloses that the retinal image is not a circle but an ellipse flattened in the opposite direction (with the vertical axis much shorter than the horizontal). Thus the shape seen (the phenomenal shape) is in between the real shape and the "stimulus" shape projected on the retina (whereas on the transmission theory the stimulus and phenomenal shapes would be identical). The height at which the ellipse appears circular differs to an almost incredible extent with different individuals.

The name "phenomenal regression" is given to the three tendencies to see objects more or less in their real shapes, sizes, and colour irrespective of their inclination, distance, and illumination respectively. The decrease in apparent size of a disc at different distances is much slower than the decrease in retinal size, but in the case of individuals with high phenomenal regression it is much slower still compared with others. Persons with high phenomenal regression would be expected to drive a motor car more easily and better through traffic, and tests by the National Institute of Industrial Psychology showed a correlation between driving ability and phenomenal regression. Alcohol decreases phenomenal regression, whilst caffeine increases it. It is suggested that a persistent tendency to drive on the crown of the road may be a fault characteristic of an individual with a low phenomenal regression.

Physiology of the Plant Cell

Professor W. Stiles addressed Section K (Botany) of the Association on the importance of the general physiology of the plant cell in pure and applied botany, with special reference to respiration and salt and water relations. Protoplasm is a system with large internal surface which is in a state of dynamic (not static) equilibrium, as it is always absorbing oxygen and giving out carbon dioxide. The general view of respiration is that it provides energy for certain plant movements and building-up substances of a higher energy content (proteins, enzymes, etc.) than the products of photosynthesis, which serve as substrate. There is evidence that an anabolic process is linked up with the oxidative breakdown of sugar. It has been tacitly assumed that the absorption and excretion of water (and dissolved substances) is determined by osmosis and diffusion. However, it has been established beyond doubt that two ions of a salt can be absorbed by living cells at different rates. Direct evidence of the effect of oxygen on the salt relations of cells has been obtained from work on storage tissues. In the absence of adequate oxygen supply exosmosis of electrolytes is followed by speedy death of the tissues. It is concluded that the accumulation of salts depends upon the vitality of the cells and that such absorption of dissolved substances depends, like respiration, upon the presence of the living substance.

Pharmaceutical Society of Great Britain

Edinburgh Examinations Results

THE following are the results of the examinations held in Edinburgh during July:—

PHARMACEUTICAL CHEMIST QUALIFYING EXAMINATION

OLD SYLLABUS.—Entered, 2; passed, 1; referred, 1.

NEW SYLLABUS.—Entered, 33; passed, 12; referred, 15; failed, 6.

The following have satisfied the Examiners:—

Allen, F., Manchester	Howarth, A. J., Whalley
Clements, W. R., Sunderland	Howes, S. W., Coventry
Clingan, R. P., Grangemouth	Pedley, E., Blackpool
Dare, J. G., Castleford	Pullar, W. J., Glasgow
Downie, A., Aberdeen	Speak, Doris, Halifax
Haddon, A. W., Rugby	Whittet, T. D., West Hartlepool
Hey, P., Poppleton, York	

OTHER EXAMINATIONS

Examination	Entered	Failed	Referred	Passed
Preliminary Scientific ...	434	163	104	167
Chemist & Druggist Qualifying	413	82	125	206

CHEMIST AND DRUGGIST QUALIFYING EXAMINATION

The following have satisfied the Examiners:—

Abba, F. W. Stockport	Dickinson, R. W., Leeds
Abbott, A. P., Nottingham	Dickson, J., Paisley
Adamson, C., Leeds	Dixon, W. C., Redcar
Allen, R., Burton-on-Trent	Dods, T. J., Edinburgh
Allman, E., London	Downie, A. Y., Aberdeen
Ambler, J. F., Bradford	Duncan, J. C., Aberdeen
Anderson, J., Aberdeen	Edmondson, C., H. Liverpool
Anderson, R., Paisley	Elliott, J. H., Redcar
Anderton, I., Ashton-on-Ribble	Evans, R., Dudley
Appleton, J. S., Sunderland	Eves, W. H., Aberdeen
Atcheson, O. C., Liverpool	Ferrie, T., Glasgow
Barlow, W. E., Wrexham	Flett, J. D. M., Aberdeen
Barron, J., Edinburgh	Forgan, D. R., Edinburgh
Bates, J. R., Bradford	Fowler, Vera J., Coventry
Bean, E., Newcastle-on-Tyne	Fowlie, G. F., Glasgow
Binde, H., Salford	Freeman, W., Bolton
Black, Eleanor C., Edinburgh	Galloway, J. S., Tayport
Blackburn, E., Salford	Goodman, H. W., Sunderland
Blythe, Janet, Glasgow	Grant, Isabella S., Edinburgh
Blythe, J. C., Rosehill-on-Tyne	Gray, G. J. M., Newcastle-on-Tyne
Booth, T. M., Birmingham	Green, S., West Hartlepool
Bowie, J. W., Edinburgh	Griffiths, J., Liverpool
Boyd, J. S., Edinburgh	Gunter, G. I., Eccles
Brands, J., Aberdeen	Hadden, J. L., Aberdeen
Broadley, J., Brighouse	Hagan, L. J., Nelson
Broadley, R. C. A., Kettering	Hall, G. A., Leicester
Brown, A. Y., Strathaven	Hall, J., Sheffield
Bruckshaw, W. M., Bolton	Halstead, R., Preston
Budge, J. L., Aberdeen	Harewood, C. W., Harrogate
Burns, J. T., Keighley	Hargrove, K. W., Liverpool
Buxton, P. E. T., Burton-on-Trent	Harness, Margaret W., Leeds
Cairns, R. W., Edinburgh	Harris, Mina, Edinburgh
Campbell, A. M., Glasgow	Harris, W. J., Liverpool
Clark, B., Bradford	Hart, R. W., Dundee
Colburn, T. M., Glasgow	Heaton, H., Westhoughton
Cooper, Alice, Gourock	Henderson, J. C., Edinburgh
Cooper, G., Runcorn	Highfield, H. B., Preston
Cooper, R. I., Leeds	Hodgson, J., Rotherham
Craine, A. C., Manchester	Hogarth, I., Middlesbrough
Dancer, N., Manchester	Holmes, C. C., Manchester
Darley, F. H., Birmingham	Holt, J., Edinburgh
Day, R. M., Dundee	Horne, S. V. V., Moreton-in-Marsh
	Horsburgh, D. D., Edinburgh

Hubbard, R. S., Liverpool	Poxon, D. W., Nottingham
Hudson, P., Scarborough	Quayle, H. S., Wallasey
Hughes, E. T., Liverpool	Rae, J. A., Preston
Humphreys, J., Crewe	Ramsden, I. D., Halifax
Hunt, G. H., Skipton	Read, H., Birmingham
Hunterman, I., Leeds	Renwick, L. R., Newcastle-on-Tyne
Irvine, Helen G., Liverpool	Reynolds, G. E., Edinburgh
Jackman, T. H., Rastrick	Robertson, Margaret J., Dundee
Jeffrey, H., Leeds	Rogers, D. B., Sunderland
Jenkins, H. J., Birmingham	Rollo, R. E. B., North Berwick
Johnstone, Agnes C. M., Leith	Sample, H., Spennymoor
Jones, J. E., Liverpool	Samuel, J., Leeds
Jones, J. S., Liverpool	Schofield, S. E., Bradford
Jones, O., Liverpool	Shand, G. S., Newmills, Fife
Jones, O. G., Liverpool	Sharp, R., Bradford
Josephson, J., Manchester	Shepherd, B. H., Leeds
Kay, G., Edinburgh	Shoemith, E. L., Bradford
Kelly, J., Edinburgh	Skea, D. C., Arbroath
Kennedy, R. W., Aberdeen	Sked, Isabella B., Coatbridge
Knight, K. D. J., Nottingham	Smiles, R. E., Newcastle-on-Tyne
Lacey, H. C., Burton-on-Trent	Smith, G., Halifax
Ledger, C. K., Birmingham	Smith, J. T., Chesterfield
Leeming, J. W., Guisborough	Smith, W., Prestwick
Lewis, H. A., West Bridgford	Spedding, J. B., Durham
Lewis, R. N., Renfrew	Stark, A. W., Blackpool
Little, W. A., Liverpool	Stewart, A. S., Aberdeen
Long, E., Leicester	Stewart, T. H. S., Glasgow
Lumsden, W., Edinburgh	Stoddart, R., Durham
Macdonald, J. A., Perth	Stone, G., Salford
McGregor, J., Glasgow	Story, J. W., Edinburgh
McKay, K. W., Edinburgh	Struthers, J. S., Peebles
McNeill, M. M., Tranent	Talbot, A., Sunderland
McQuattie, C., Letham	Thompson, J., Blackpool
McRobbie, R. I., Muthill	Thomson, J. I., Aberdeen
Madeley, G. O., Bradford	Thrustle, W. N., Bearsden
Malpass, J. G., Newcastle-on-Tyne	Tod, A. A., Edinburgh
Mansell, F. J., Wolverhampton	Trevor, G., York
Marshall, J. J., Dundee	Urwin, A. R., Gateshead
Massie, W., Aberdeen	Vance, W. J., Glasgow
Mattar, I., Edinburgh	Wallace, D. C. C., Dundee
Miles, L., Liverpool	Walton, D. S., Nottingham
Mitchell, C., Rochdale	Wardale, S., Saltburn-by-Sea
Mockett, J. C., Edinburgh	Waring, K. F., Leeds
Moffatt, J. R., Gateshead-on-Tyne	Watt, J. W., Aberdeen
Moseley, A. H., Birmingham	Webster, G. A., Bradford
Mottram, Dorothy J., Coventry	White, G. E., Birmingham
Muirhead, W., Birmingham	White, W., Moffat
Murdoch, Jean C., Rutherglen	Whitehead, H. C., Rotherham
Neal, T. C. S., Newburn-on-Tyne	Wilcock, A. L., Warrington
Needham, F. M., Nottingham	Wilcox, R., Walsall
Neil, G. F., Glasgow	Wilkinson, R. P., Brandon
Newby, J. C., York	Williamson, Stella M., Coventry
Nicholson, J. T., Liverpool	Wilson, A., Bradford
Palgrave, R. A., Newcastle-on-Tyne	Wilson, E. H., Wallasey
Parkinson, F. B., Nottingham	Wilson, R. K., Dundee
Paton, D. J. A., Edinburgh	Woodworth, J. J., Liverpool
Patterson, A. W., Edinburgh	Woolfe, I., Manchester
Pilling, N. R., Southport	Wynne, N. A., Newcastle-on-Tyne
Porter, C. J., Birmingham	Wythes, P. E., Worcester
Powell, F. J., Birmingham	Yeaman, J., Greenock
	Young, C. E., Edinburgh

WHAT IS A CUSTOMER?—In the case of a shopkeeper who was summoned at Southport recently for breaches of the Shops (Sunday Trading Restrictions) Act, 1936, it was pleaded by the defence that a customer was one who frequently dealt with one shop, which could not be the case when an agent was sent to a shop that was strange to her by the shops inspector. The magistrates defined a customer as one "who enters a shop for the purpose of buying."

Two Shops Converted Into One



Above, Exterior of altered premises, showing facias linked by lettered panel; below, left, interior of original pharmacy, showing general service counter in central position between shops; right, newly acquired portion showing decorated under-surface of stairs and girder replacing party wall.

AN unusual example of structural alteration to meet increasing space requirements of a growing business is to be found in the premises of Mr. A. G. Martin, M.P.S., Goring Road, West Worthing, Sussex. His first pharmacy was on the left of an entrance to flats above, and separated from the shop on the opposite side of the entrance by staircase and party wall. The second shop, formerly occupied by a grocer, fell vacant, and Mr. Martin decided to acquire it. The two shops were converted into one by the removal of a large portion of the party wall, providing sufficient space for installing the main service counter in an exactly central position, with equally convenient access from either entrance and adequate floor space for customers to pass from one part of the shop to the other. The support formerly given by the wall was provided by a girder, concealed by a casing. The sloping under-surface of the staircase was decorated with off-white distemper, on which were imposed cut-out patterns of coloured flowers and foliage. Below the sloping portion were installed stock cupboards, with fairly deep display shelf over. Apart from improved facilities for storage, service and internal display, window-display space has been more than doubled, for the second shop-front has a

deeper lobby with a recess on one side enabling displays to be inspected without impeding the ingress and egress of shoppers. The second shop-front was matched to the first in facia and pelmets, and an appearance of continuity was created by linking the two facias with a central panel over the entrance to the flats, bearing the words "The Chemist" in cream enamel-filled letters similar to those used for the name on both facias. Metal-faced plywood, painted to blend with the emerald-pearl granite stall-risers, provides an effective background for the lettering. This material has come into frequent use for facias as an alternative to coloured or white opaque glass. The work was carried out by Philip Josephs & Sons, Ltd., London.

The new shop is given up mainly to cosmetics, perfumery, and toiletry products, enabling adequate space to be assigned in the older premises to photographic merchandise and other specialised stock. Supplementing the centrally-placed main service counter, which is of the modern, triple-purpose type, there are several smaller glass counters. Good use is also made of independent display units. Doorways immediately behind the central counter on either side of the party wall (intact at rear) lead to dispensary and storeroom.

Trade Notes

HERB CROP PRODUCTS.—New season's belladonna and hyoscyamus are advertised in this issue by William Ransom & Son, Ltd., Hitchin, Herts.

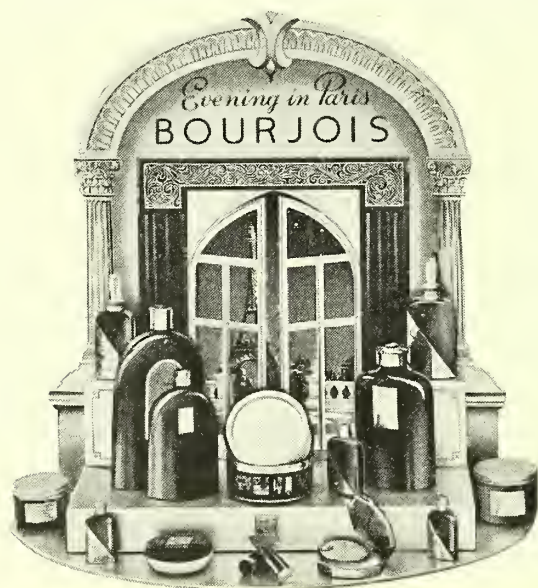
CHEMISTS' LABELS.—Steel, Adams & Co., Jordan Street, Manchester, 15, direct attention to their high-class labels, which are produced by litho-offset process. Inquiries are welcomed.

BISMUTH CARBONATE.—Howards & Sons, Ltd., Ilford, offer bismuth carbonate, B.P., in three densities. This chemical, together with other Howard products, is advertised in this issue.

STRYCHNINE.—Whiffen & Sons, Ltd., Aldersgate Chemical Works, Fulham, London, S.W.6, who are actual manufacturers, invite inquiries for strychnine which is obtainable at competitive rates.

GEARED PUMPS.—Farrow & Jackson, Ltd., 54 Great Tower Street, London, E.C.3, illustrate and describe motor-driven geared pumps. Full details and prices are submitted on application.

EVENING-IN-PARIS.—Illustrated on this page is an attractive display stand in blue and aluminium which is intended to carry a full range of Bourjois' Evening-in-Paris toilet products.



The scheme followed in the production of this showcard harmonises admirably with the title of the products, as will be seen from the illustration in which the windows open out to the Eiffel Tower. This screen measures 17½ in. by 13½ in. approximately.

ROCHE PRODUCTS, LTD., 47 Bowes Road, London, N.13, are moving to Welwyn Garden City on August 26. They announce that the bonus terms on Sedabrol sedative tablets are being restored from September 1.

B.D.H. STANDARDS.—The British Drug Houses, Ltd., Graham Street, City Road, London, N.1, briefly explain in an advertisement how certain vegetable drugs, such as cardamoms, dill, cloves, etc., are tested for therapeutic value.

ELASTO DISPLAY MATTER.—The New Era Treatment Co., Ltd., Cecil House, Holborn Viaduct, London, E.C., have produced a new Elasto showcard which may be obtained together with a supply of dummy cartons free on application.

ALKA-SELTZER.—In this issue Alka-Seltzer is described and its advantages outlined, together with its uses in certain conditions and ailments. An Alka-Seltzer tablet makes a sparkling, pleasant-tasting solution. It is intended to relieve pain and discomfort and to correct conditions due to acid-alkali imbalance. Alka-Seltzer is issued in two sizes and distributed by Don S. Momand, Ltd., 10-15 Chitty Street, London, W.1.

CHRISTMAS SHOWROOMS.—Bristow, of Old Bond Street, give a list of towns and hotels where they hold displays for Christmas trade. These Christmas shows begin in Belfast on September 5 and conclude in London at 6 Old Bond Street, W.1, on October 21.

CARADIUM hair restorer, described as safe and effective in restoring the colour of grey or faded hair, is advertised in this issue. Caradium, which is nationally advertised, is issued in two sizes, and is made by Caradium, Regd., 38 Great Smith Street, Westminster, London, S.W.1.

COX'S SELLING SCHEME.—Arthur H. Cox & Co., Ltd., announce that their C.O.B. methods of packing and advertising are meeting with the approval of pharmacists all over the country. Literature descriptive of this scheme will be sent to those interested free on request.

CHRISTMAS SHOWROOMS.—The Vinolia Co., Ltd., Bebington, Cheshire, have arranged a series of displays of Christmas packs in various towns beginning with Manchester on September 5 and concluding with Inverness on October 26. Full details are given elsewhere in our advertisement pages.

COD-LIVER OIL BONUS OFFER.—The British Cod-Liver Oil Producers (Hull) Ltd., St. Andrew's Dock, Hull, advertise a bonus offer on small quantities of Seven Seas cod-liver oil. Orders should be sent to the usual wholesalers before October 1. Full details are given elsewhere in this issue.

HOT-WATER BOTTLES.—The North British Rubber Co., Ltd., invite chemists to write for full range and prices of hot-water bottles to their London address, 200 Tottenham Court Road, W.C.2. North British hot-water bottles are issued in various colours and designs, and may be obtained through the usual wholesalers.

GERMICIDAL SOAP.—Neko germicidal soap, a product of Parke, Davis & Co., 50 Beak Street, London, W.1, sells well in summer, and is particularly useful for those who live out-of-doors at this time of the year, in addition to those regular users among doctors, nurses and midwives. Chemists are invited to write for terms.

HOUSEHOLD RUBBER GLOVES.—Herbert Fromm, 29-31 Oxford Street, W.1, inform us that their H.F. trusted extra stout household rubber gloves are finding a ready sale among chemists. These gloves are available in four sizes and packed in counter display boxes of three dozen assorted. Further details may be obtained on application.

CORRECTION.—The price of Bennett and Cocking's "The Science and Practice of Pharmacy," referred to under the heading "Books for Students," on p. 168 of our last week's issue, is 10s. 6d. per volume and not as stated. Bennett's "Medical and Pharmaceutical Latin for Students of Medicine and Pharmacy" and Southall's "Materia Medica" are now out of print.

CALCYDIC TABLETS.—Calcydic tablets are a new product issued by Allen & Hanburys, Ltd., Bethnal Green, London, E.2. Each tablet contains dicalcium phosphate, grs. 2½, and vitamin D, international units 500, in chocolate-flavoured glucose and presents calcium, phosphorus and vitamin D in a form acceptable to both children and adults. These products are issued in bottles containing 40, 100 and 200.

MALT EXTRACT CONTRACTS.—Jeffreys, Miller & Co., Ltd., Leyland Mills, Wigan, invite malt extract buyers to place their contracts now on terms which are very favourable. Samples and full details are given on request. Messrs. Jeffreys, Miller are well equipped to quote in bulk quantities for hospitals, clinics, corporations, etc. Various packs of their malt preparations are illustrated elsewhere in this issue.

RYZAMIN-B.—Ryzamin-B, a rice polishings concentrate, is an effective presentation of Vitamin B₁, which is particularly useful in counteracting metabolic disturbances due to Vitamin B₁ deficiency. Veterinary surgeons also report good results in cases of impaired appetite in dogs. This product is issued in two sizes by Burroughs Wellcome & Co., Snow Hill Buildings, London, E.C.4. To assist sales, a showcard (No. 024) is available on application.

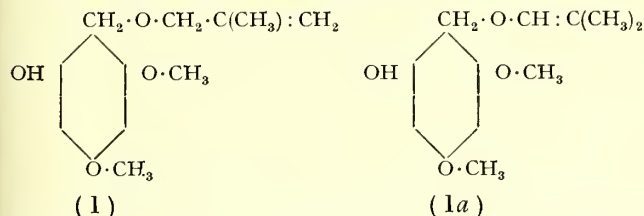
Recent Research

Cyanogenetic Australian Plants

Losses of sheep and cattle occurring in Australia due to the toxic nature of certain wild plants have led to investigations into the constituents of the plants. ("Journal of the Society of Chemistry and Industry," 1938, 57, p. 162.) The main cyanogenetic constituent of *Lotus australis* is the glycoside of the cyanohydrin of methyl ethyl ketone, for which the name lotaustralin is proposed. This is accompanied by smaller quantities of linamarin, the corresponding compound from acetone. *Trifolium repens* (white clover) was also shown to contain lotaustralin, which is closely related to the cyanogenetic glycoside found in flax. The mandelonitrile glycoside, sambunigrin, shown to be present in *Ximenia americana*, yielding by enzyme action hydrocyanic acid and benzaldehyde, has been found in other plants. *d*-Methylinositol was shown to occur in all three plants.

Bæckeol

A PAPER on this essential oil constituent, by Penfold and Simonsen, appears in the "Journal and Proceedings of the Royal Society of New South Wales" LXXI, 291. Some years ago, some of the essential oils of the *Myrtaceae* were shown to contain a phenol of the formula $C_{11}H_{11}O_4$, crystallising in yellow prisms, melting at 103° - 104° (Penfold and Morison (ibid. 1922, 56, 87)). The oils, which appeared to be especially rich in this phenol, were those of *Bæckeol crenulata* and *Darwinia grandiflora*. The authors propose the name *Bæckeol* for this phenol. It is stated that it contains two methoxy groups and one hydroxy group. It yields an acetyl derivative melting at 71 - 72° , and its alcoholic solution gives a blue-black colour with ferric chloride. "We suggest," say the authors, "that the phenol is most probably represented by the formula (1) or (1a), since on fusion with sodium ethoxide at 200° it gives phoroglucinol α -methyl ether (compare Curd and Robinson, "Journal of the Chemical Society," 1933, 441) and isobutyric acid on oxidation with hydrogen peroxide in alkaline solution.



Whilst the formation of the phoroglucinol derivative establishes definitely the positions of the substituent groups in the benzene nucleus, the authors admit that the structure of the side chain was not rigidly proved. Support for formula (1) was obtained by the oxidation of bæckeol methyl ether by means of potassium permanganate in alkaline solution. "Although the main product of the oxidation was a gummy acid which could not be purified, a small quantity of a neutral substance was isolated which crystallised in thin prisms melting at 65 - 66° and which had the composition $C_{13}H_{13}O_5$, and the authors suggest that it is probably the ketone, of which they give a possible formula. By heating bæckeol with sodium methoxide at 250° , removal of the side chain was effected, and a phenol $C_6H_5O_2$ melting at 150 - 151° was obtained. "There can be little doubt that this phenol, which did not contain a methoxy group, is mesorcin." On nitration bæckeol yields a nitro derivative $C_{11}H_{11}O_5$ (OCH_3) melting at 106° , in which a methoxy group is probably replaced by the nitro group. This nitrophenol, which gives a red coloration with ferric chloride, is somewhat remarkable in that it dissolves in alkali to a colourless solution. Bæckeol methyl ether gives a dinitro derivative $C_{13}H_{13}D_2N_2$ which melts at 115 - 116° . The authors state that "whilst we regard these experiments as affording strong evidence for the structure (1) assigned to bæckeol, it is proposed to attempt the synthesis of the phenol." Full details of all the experimental work are given.

CAPILLARY PIPETTES.—The British Standards Institution has issued specification No. 797 for one-mark capillary pipettes. Copies may be obtained from the Institution at 28 Victoria Street, London, S.W.1, price 2s. (2s. 2d. post free).

Marriages

BEARD—BENTLEY.—At St. Mary's Church, Newton, Cheshire, on August 6, Kenneth Arthur Beard, M.P.S., to C. Bentley.

MAY—JOLLY.—At Fraserborough Congregational Church, recently, Alexander B. May, M.P.S., to Nettie Jolly.

MCCALLUM—WESTWOOD.—At St. David's Episcopal Church, Inverbervie, Montrose, on August 4, William McCallum, M.P.S., Shotts, to Mignon M. Westwood.

Deaths

CLAGUE.—At Looe, Cornwall, on August 15, Mr. Thomas Maltby Clague, Ph.C., aged seventy-nine. Mr. Clague was apprenticed in Douglas, Isle of Man, and held assistantships at the Plough Court establishment of Allen & Hanburys, Ltd., and at Leamington Spa. Fifty years ago he went into partnership with the late Mr. Barnard S. Proctor as Proctor, Son & Clague, Newcastle-on-Tyne. This firm was merged in 1912 into a partnership with the late Mr. G. Weddell, under the style of Manson & Proctor, Ltd. Mr. Clague was local secretary of the Pharmaceutical Society for twenty-five years, and on two occasions local secretary of the British Pharmaceutical Conference in Newcastle-on-Tyne. He was a pioneer of x-ray work in the North-East Coast. His two sons are both pharmacists.

DEAVILLE.—At his residence, Carlton House, Pelham Road, Sherwood Rise, Nottingham, on August 14, Mr. Benjamin Deaville, managing director of Newball & Mason, Ltd., manufacturing chemists, Nottingham. Mr. Deaville had been associated with the business all his life. He was eventually taken into partnership, and on the death of Mr. Mason became the sole proprietor, and managing director when the business was converted into a limited company. In 1931 he was presented by the staff with a rose bowl to commemorate his fifty years of service with the firm.

LANCASHIRE.—At Church Street, Ballymena, on August 7, Mr. Huston Lancashire, M.P.S.N.I., one of the original members of the Council of the Pharmaceutical Society of Northern Ireland. He retired in 1931. Mr. Lancashire, who was a native of Bailieborough, co. Cavan, passed the Licence examination of the Pharmaceutical Society of Ireland in 1885, and was in business in Ballymena for many years. He took a great interest in public affairs, having been a member of the old Town Commissioners and afterwards chairman of the Urban Council. He was a member of the County Antrim Agricultural Association, and as a Justice of the Peace frequently sat on the Bench. He is survived by his son, Mr. Maxwell Lancashire, and three daughters, one of whom, Miss Connie Lancashire, M.P.S.N.I., is associated with the business in Ballymena.

PALMER.—Recently, Mr. Clifford Palmer, M.P.S., 46 Milner Street, Manchester. Mr. Palmer passed the Qualifying examination in 1925.

Personalities

MR. A. H. BARNETSON, M.P.S., London, S.W., was among those who qualified for the match play stages of the Eden Golf Tournament at St. Andrews recently, with scores of 79 and 78.

MR. T. F. WEST, M.Sc., of the staff of Stafford Allen & Sons, Ltd., has been elected to fellowship of the Institute of Chemistry.

Six of the Rotary Clubs in Great Britain have pharmacists as their presidents for the year 1938-39:—Aberdare, Mr. A. B. Andrews; Carlisle, Mr. T. M. Ridley; Cowes, I.O.W., Mr. F. W. Beken; Crosby, Mr. J. Allen Jones; Guernsey, Mr. Cecil Stonelake; Perth, Mr. W. B. Forbes. A number of pharmacist rotarians are also acting as secretaries of their clubs:—Grimsby and Cleethorpes, Mr. O. C. Seaton; Hemel Hempstead, Mr. W. Lambrick; Hastings, Mr. E. W. Skyrme; St. Albans, Mr. P. H. Warren; and Ulverston, Mr. T. B. Horrocks.



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Information Department

INFORMATION WANTED

Postal or telephone information with respect to makers or first-hand suppliers of the undermentioned articles will be appreciated.

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parilla	H/88 Selfplast
A/17 Neroline Soap	W/11 Stumpf's Magic Hoo-
B/17 Parsley tablets	doo Tape
	M/17 Takapain

THE

CHEMIST AND DRUGGIST

VOL. CXXIX

August 20, 1938

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Vision—Natural and Scientific

IN his address to the British Association, on August 17, entitled "Vision in Nature and Vision aided by Science," the president, Lord Rayleigh, selected a subject discussed at the last Association meeting at Cambridge in 1904, by Lord Balfour, who was among the earliest workers to contrast the scientist's impression of the universe with that derived from an application of the senses. Lord Rayleigh recalled that all qualities or senses which do not contribute to the instincts of fighting, eating and procreation are merely offshoots of those that do, and also that man is not provided with sense organs for the purposes of research. At first sight, scientific conclusions may appear to be totally different from the ideas provided by our senses, but it seems that as time goes on there is a tendency to translate the more abstract deductions into simpler terms. A simple example of this is the theory of atoms which, not very long ago, was regarded with no little scepticism, but which by now is firmly established by direct methods of experimentation. By way of illustrating the artificial agencies which have been used to adapt the senses to research purposes, Lord Rayleigh indicated, when referring to the mechanism of the human eye, that by sacrificing some of the properties which are regarded as the primary purpose of nature, other properties can be enhanced in the service of research. Thus, for investigating near or distant objects the powers of the eye can be altered by appropriate lenses, and by substituting an artificial retina in the form of a photographic plate the range of spectrum can be greatly extended. Similarly, by other intricate apparatus, the structure of atoms and the disintegration of radio-active bodies can be examined, and the mutual relation of the elements can be traced. The limitations of microscopes in which daylight is used are becoming realised, for whereas it is not difficult to increase the magnification of an object, a point can be reached beyond which further increase in size shows no practical advantage, as the quality of an object does not necessarily improve with increasing size. It will be appreciated that the theoretical limit of a daylight microscope is that stage where points of an object which are less than

half a wave-length, or approximately one hundred-thousandth of an inch apart cannot be distinctly separated. This stage has been practically reached. Such limitations present a serious problem to progress of medical science, as many forms of pathogenic organisms are approximately of these dimensions, but on the other hand, as microscopic resolution is dependent upon a fine structure in the light itself, the use of ultra-violet light holds out some promise for the future. In the ultra-violet region, it is possible to get contrast in the object without staining, an advantage which is as considerable as increased resolving power, and with the ultra-violet light from a mercury-vapour lamp a virus contained in a cell reveals itself as a more highly absorptive body than the other elements of the cell. Thus, the task of probing into the nature of viruses has been lightened by ultra-violet microscopy.

Turning to the question of the application of science to warfare, the view is often held that scientific knowledge is an evil which leads to war. Is there real justification for this belief, or is such an opinion the outcome of ignorance of the truth regarding the process of scientific investigations and discoveries? Could the chemists who first studied the action of substances, such as nitric acid on organic compounds like toluene, glycerin and cellulose, foresee the outcome of their findings? It should be realised that a compound of such industrial importance as nitroglycerin remained unnoticed after its experimental discovery for many years before its explosive properties were explored, and its derivatives like dynamite were evolved. These latter were of proved value for peaceful purposes too long for their misuse to be attributed directly to science. Chlorine, which was extensively used in the Great War, was also discovered during inquiries into the nature of common salt more than a hundred years before it was used as a poison in warfare. Lord Rayleigh presents a good case for science in his reference to mustard gas. He points out that in a publication dated 1894 dichlor-diethyl-sulphide was lightly regarded as an oil with poisonous and irritant properties in contrast to its related compound diethyl-sulphide. On the same page of this book appear accounts of other compounds, and while dichlor-diethyl-sulphide was unexpectedly turned to use as mustard gas in warfare as a weapon for human destruction, and its discoverer regarded as a fiend, the producer of another substance, chloroform, is regarded as an angel of mercy. The cold fact is that in both cases the early experimenters were spurred in their work by the same spirit—the urge of scientific curiosity, not knowing whether the result of their labours would prove them fiends or angels. Pursuing the question still further, a chemical which might be regarded as one of the worst terrors of war was presumably first introduced for heating metals and welding processes and in the harmless joining up of iron pipes. This is now used as thermite in modern incendiary bombs—an application which its discoverer probably never dreamed of. It is reasonable to argue that the scientists who produced compounds of aluminium such as thermite are no greater contributors to warfare than the ancients who produced deadly, though primitive, implements of iron. There is ample proof to show that military aggression was not behind the minds of the inventors of aircraft, the development of which has been largely responsible for the wider application of the chemical terrors just referred to, and past experience has taught us to regard the application of original scientific discoveries to warfare as being far too remote for such discoveries to be controlled at their source.

Slum Clearance Effect on Trade

A REDISTRIBUTION of the population almost unparalleled in the history of this country is slowly but surely taking place in the transference of slum dwellers to more salubrious quarters. It may be recalled that in 1933 a national programme was adopted by local authorities for the demolition of nearly 300,000 insanitary dwellings in England and Wales. This total has since been increased to over 400,000. According to the Ministry of Health returns up to the end of May 1938, over 200,000 new houses had been completed under the 1930 Housing Act, and there thus remains a further 200,000 for slum clearance to say nothing of the new houses required in order to cope with the overcrowding referred to in the 1935 Housing Act. This is all to the good, and no one can find fault with the desire to improve the conditions under which so many people in this country live. Yet just as that legendary Pied Piper who whisked away the children of Hamelin to an unknown destination, left behind the cripple child and those who had looked after the children, the Ministry of Health, which seems in this connexion to have something in common with the Pied Piper, is responsible for leaving high and dry the traders who have served the needs of the neighbourhood for many years. So far as we are aware, no steps have been taken to indemnify traders for the serious losses which rehousing has brought or is likely to bring upon them. We understand that some retail chemists at Swansea have experienced serious trade losses following the removal of 400 houses in the High Street district under slum clearance and demolition orders. They now have to face the prospect of another 300 houses being removed with a consequent result of a large number of their customers. In this particular district there is a growing danger of trade depression, and a hundred retail traders have united to form an association described as the High Street Retail Traders' Association. The Council and local landowners have been petitioned to take immediate steps to rebuild houses or flats on the derelict areas and thus repopulate the district. The Association's deputation met the Swansea Housing Committee to discuss the matter at a private meeting. It is understood, however, that the prospect of the traders is not a happy one. Apparently, there is a suggestion that light industries be erected on the cleared sites. It has been pointed out by a chemist, whose business has been seriously affected, that the London County Council have housed workers in flats on the sites which have been cleared as slum areas. Light industries are not likely to replace householders as customers, and reassessment is also likely to be of little avail. The only solution, and it is an urgent one, is a good re-housing policy.

In Scotland, we learn, a similar state of affairs exists and the present efforts of municipalities to move populations under the new housing schemes is described as disastrous to many well-known established businesses which are left in desolate areas without customers. Our attention has been directed to one case where a prominent pharmacist in Kirkcaldy has suffered a serious loss of trade. This is no small hardship to a pharmacist who has been in business on the same site for over forty years. It is obvious that the side issues of slum clearance are likely to become serious problems, and while we speak especially of pharmacists, they are on common ground with other retailers who are affected by slum clearance. Vigorous steps must be taken to see that the areas when cleared are built up again, if the retail community as a whole is not to suffer grievous loss.

Food, Drugs and Cosmetics in the U.S.A.

ON another page in this issue we publish a summary of the new Food, Drugs and Cosmetics Act which appeared in our American contemporary, "The American Journal of Pharmacy." This new measure, the Food, Drugs and Cosmetics Act, which replaces the Act of 1906, has reached its final stage almost simultaneously with the new British Food and Drugs Act which received the Royal Assent on July 29. It will be noted that the U.S.A. Act goes considerably further than any previous measure dealing with food and drugs. This is particularly so in that cosmetics have been placed alongside food and drugs. It need hardly come as a surprise to find that cosmetics are at long last being recognised to have important side effects, if not direct action, so far as the health of the person using them is concerned. For example, lipsticks have been known to cause slight dermatitis whether as a result of idiosyncrasy or a particularly active dye, and face powders also have been known or at least suspected of causing harmful results to the skin of the user. The U.S.A. Act is likely to have a restraining effect upon the wholesale production and distribution of cosmetic creams containing sex hormones. In a recent issue of the *C. & D.* (July 16, p. 59), we directed attention to the effect produced by creams containing hormones. The new law lays down the axiom that a cosmetic shall be deemed to be adulterated if it contains any substance which may render it injurious to the users. Manufacturers will be required according to this new American Act to give on the labels of medicine containers much more information than has been given in the past. If any medicine is sold containing certain named narcotic substances, a label must appear with the statement: "Warning: May be habit-forming." Traffic in new drugs will be prohibited until the authorities have been satisfied that they can be used with safety in accordance with the directions given on the label. Another sweeping change is seen in the abolition of the need for the prosecution to prove fraudulent intent on the part of a defendant. The Act of 1906 was responsible for placing upon the State the onus of proving that the vendor was guilty of fraudulent intention, and this change will no doubt be welcomed by the authorities who had a difficult task in making their case.

Overseas Doctors' Dilemmas

It will be recalled that the New Zealand Government recently evolved a plan for the free service of general practitioners for everyone in the Dominion. We now learn that the President of the New Zealand Branch of the British Medical Association reports that less than 5 per cent. of their members were in favour of this plan; further, since it is the intention of the Government to retain this proposed plan in the Social Security Bill, the Association has informed the Minister of Health that the discussion of other provisions need not be continued. In the House of Representatives, Mr. Nash, the Minister of Finance, stated that the Government would continue to discuss the matter with the Association. According to a report, Mr. Savage, the Prime Minister of New Zealand, stated that despite the opposition from the British Medical Association to the health insurance proposals, the legislation would be placed upon the statute book. The Government does not intend to be turned aside from their scheme on account of medical opposition, and if the British Medical Association withholds its co-operation, other steps may have to be taken. The attitude of the New Zealand doctors recalls to mind the similar stand taken in this country at the inception of the National Health Insurance Act over twenty-five years ago. Doubtless New Zealand doctors, as did the physicians in this country, will get used to the idea, especially if their services are as well rewarded.

In America, the United States medical profession is up in arms against the proposed programme of annual expenditure on health of £170,000,000. The American Medical Association, which has a membership of over 100,000, has protested that the medical profession alone has the knowledge to operate a health programme. The American Medical Association is apparently divided against itself, but the chief concern of the American Medical Association seems to be that the Government is less capable of dealing efficiently and economically with health problems than the Association itself.

"PENN'S Pharmacology ; or, Medical and Chemical Compendium," by Thomas Penn, Apothecary, Chemist and Druggist, Sidmouth, published in 1822 at Sidmouth, is a stiff-covered volume of some 330 octavo pages. It contains a number of sections, the largest of which is Penn's "Catalogue of the Names of the Various Medicinal Articles

A DRUGGIST'S PRICE-BOOK.

The catalogue of medicinal articles is, as already stated, the most important section of the work. In this the "various names of every article are distinguished at one view." First comes the English name, followed by the several Latin names; next to the English the last new name the article bears according to the last new edition of the London Pharmacopœia of 1816; next the dose of the article; proper vehicle; effects, or medicinal quality; "diseases proper for"; also a blank space in which to enter the wholesale and retail prices. The table given below shows typical entries:—

The letters *D*, *E* and *L* (column 1) refer to the pharmacopœias of Dublin, Edinburgh and London.

"Subjoined are the Names of each Medicinal Article used abroad, its Synonymes in the French, the German, the Italian, and the Spanish Tongues, the addition of which, I hope, will render this Work more extensively useful." The following entries may be quoted (*f* = French; *g* = German; *i* = Italian; *s* = Spanish):—*Anethi Semina*, syn. fenouil puant ou persil odorant, *f*; dill, *g*; eneldo de olor pesado, *s*; appio palustre sellano sellero, *i*. *Scilla Radix*, syn. scille, *f*; meerzwiebel, *g*; scilla, *i*; cebolla abarruna, *s*.

Advice to Prescribers

In a chapter "On the Art of Prescribing Medicines," the author gives sound advice: "In prescribing a medicine, even the best calculated to fulfil the object of the practitioner, it is necessary to consider the age, sex, temperament, habits and idiosyncrasy of the patient. . . . In every prescription simplicity should be kept in view, and when one medicine will answer the intention of the prescriber it ought to be preferred. The nauseous taste, however, and the other qualities of the great majority of drugs, require the addition of others to modify their action. . . . Thus for those to whom peppermint water is not disagreeable the nauseous taste of sulphate of magnesia is more completely concealed by that vehicle than any other. . . . In writing a prescription the first object is the principal or most active ingredient which is called the basis; the next the adjuvans, or that which is designed to promote the action of the basis; the third, the corrigens, or that intended to correct or modify its actions; and the last the vehiculum, or that substance in which the more active ingredients are to be exhibited, and which consequently gives the formula its peculiar character. . . . Salts, and other soluble solids, should be placed before the menstruum in which they are to be dissolved, and volatile substances should always be placed last. . . . Finally, the names of each ingredient should be written at full length in a legible hand, and the symbols of the quantities distinctly marked; and no prescription should pass from the hand of the prescriber without being deliberately read over, and its correctness ascertained." These are hints which could be taken to heart by prescribers to-day.

A Chemists' Calendar

The "Pharmaceutical Calendar," which follows, is in odd contrast, because there can hardly be an operation included (as one of the "Principal Objects which the Apothecary has to attend to in each month of the Year") which is performed by the chemist and druggist in business in 1938. The Calendar reads: *January*, The concentration of vinegar by freezing;

muriate of antimony; ethers; dulcified spirits; some gum resins, as assafoetida, galbanum, ammoniac, etc., to be powdered. *February*, as in *January*. *March*, Mezereon bark; mistletoe of the oak to be gathered; conserve of scurvy-grass to be prepared. *April*, Conserve of sorrel; plaster of henbane; extract of henbane, dandelion, etc. *June* (May is not included), Distilled water of lily of the valley; various distilled spirituous waters; conserves of various herbs and flowers, as conserves of roses, etc.; hemlock plaster; extracts of hemlock, wild lettuce, aconite, etc. *July*, Vinegar of roses, rose water, preserved cherries, walnuts, currants, etc.; extract of elaterium; honey of roses; boiled oil of hypericum, etc.; distilled oil of rosemary, mint, parsley, pennyroyal, wild thyme, etc.; syrup of cherries, raspberries, etc.; spirit of rosemary. *August*, Cherry water, extract of blessed thistle, thorn apple, etc.; boiled oil of wormwood, chamomile, etc.; distilled oil of wormwood, chamomile, peppermint, mille-foil, rue, etc.; rob of mulberries; syrup of ditto. *September*, Quince, cinnamon water; oxymel of meadow saffron; quince cakes; syrup of barberries; quince buckthorn; tincture of steel, with quince juice. *October*, Tincture of steel, with apple juice. *November and December*, as in *January*.

There is little to comment upon in the table of weights and measures, except that the direction for small grain-quantities is illustrated as being by an appropriate number of dots within a square outline—a method rarely seen to-day, possibly on account of its obvious limitations. Some of the directions as to the resuscitative process to be adopted for the recovery of persons apparently drowned make strange reading. The person is never to be held up by the heels or rolled on casks, or subjected to other rough usage. To restore breathing, the recommended procedure is to introduce the pipe of a pair of bellows into one nostril, the other, with the mouth, being closed; inflate the lungs till the breast is a little raised, the mouth and nostrils being then let free, repeating the process "till life appears."

Many familiar and unfamiliar names appear in the list of remedies, such as Henry's Aromatic Vinegar, Thieves' Vinegar, Hooper's Pills, Taylor's Remedy for Deafness, Pate Arsenicale, Singleton's Eye Salve, Walker's and Wessell's Jesuits Drops, Solomon's Cordial Balm of Gilead, Mock Arrack, Lancashire Black Drop, and many others. A formula for Boerhaave's Fever Powder is of interest in view of a recent article on Dr. Hermann Boerhaave (*C. & D.*, July 30, p. 109). The directions are: Take of nitre purified, 8 ounces, gum camphor, 2 drs., saffron powder, 1 dr., powdered cochineal, 8 grs., each to be finely and separately powdered, and kept in a dry bottle. Dose, 10 grs. for an adult, every four hours.

Induced Malaria Therapy

TREATMENT of general paralysis of the insane by means of induced malaria was started in 1917 and has since been adopted in every civilised country in the world. If applied in a sufficiently early stage of the disease, malarial treatment will usually result in the recovery of the patient and his return to normal life; but even if applied later it is found, in a large proportion of cases, that length of life is increased. Among those patients who remain in institutions many so treated show a definite mental and physical improvement. An account of a "mosquito farm," where 27,000 mosquitoes have been bred from a single female and infected with malaria so that they in turn might be used to infect patients suffering from certain forms of disease for which artificially induced malaria is a recognised treatment, is given in a report by Lieut.-Colonel J. A. Sinton, the medical officer in charge of the Ministry of Health Malaria Laboratory at Horton, Epsom, published recently. ("A Report on the Provision and Distribution of Infective Material for the Practice of Malaria-therapy in England and Wales.") Reports on Public Health and Medical Subjects, No. 84, H.M. Stationery Office, price 6d.) The report shows that, of the cases on which the latest yearly results are based, 49.1 per cent. had some favourable result and 24.8 per cent. were discharged "cured" or "improved." In the early days of malaria therapy, the fever was induced by the injection of infected blood, but when official arrangements for the provision of infective material were initiated in England in 1923 it was decided that as far as possible the fever should be transmitted

by the bites of mosquitoes. The requests for mosquitoes became so numerous, however, that in 1925 it was decided to establish a separate unit to cope with them. The original unit, established at the Horton Mental Hospital, consisted of mosquito-proof wards holding twelve beds and two small rooms fitted up for laboratory work. Since that time, increasing demand for the treatment of cases has led to the extension of the special wards to provide for twenty-three patients, and it is hoped further to extend this accommodation in the near future.

The method adopted at Horton is to keep a supply of uninfected mosquitoes in a special "mosquito farm" or "insectarium," where an ample supply of insects, originally derived from a single female, is available at all times of the year. Batches of these mosquitoes are infected by placing them in jars which are then applied to the thigh of a selected malarial patient. When the mosquitoes have bitten the patient and taken their full of malarial blood, they are then removed to a special "hot room," where they are kept until the infection develops in them and they are required for use in transmitting malarial infection to a patient for whom such treatment has been prescribed. When this occurs fifteen or twenty infective insects are placed in a feeding jar and taken by trained assistants to the hospital where the patient is. During transit the feeding jars are packed in a thick leather case to prevent breakage and the consequent escape of the insects. The mosquitoes are given an opportunity of biting by applying the gauze-covered end of the feeding jar to the

external surface of the patient's thigh. To be absolutely certain that transmission of the infection will take place effectively an attempt is made to get at least ten mosquitoes to bite. Patients are commonly treated at distances involving journeys of several hours from Horton, but in cases where it is impracticable to use the mosquitoes the infection is sometimes transmitted by an infusion of infected blood.

The Malarial Parasite

In all the early work, reliance was placed entirely upon infections with benign tertian malaria (*Plasmodium vivax*). Such infections are relatively harmless provided that the physical state of the patient is fairly good before the inoculation is made and a careful watch is kept on his condition during the febrile attacks. By careful observations of the parasite prevalence in the peripheral blood and of the severity of the clinical symptoms, it is possible to detect when dangerous manifestations are present or appear imminent. By the timely administration of appropriate treatment and by careful nursing to keep the temperature within bounds, it is usually possible to hold the infection in check and damp down its severity. Under the special controlled laboratory and hospital conditions at Horton, it has been possible to investigate with safety the therapeutic possibilities not only of *P. vivax*, but also of *P. falciparum*, *P. malariae*, *P. ovale* and *P. knowlesi*. Infections with these other species of *Plasmodium* have not been found so useful for routine distribution as has been that of *P. vivax* for the inoculation of the non-immune type of individual who forms the vast majority of the patients to be treated in the British Isles. Several different strains of *P. vivax* derived from countries as far apart as India, Roumania and Madagascar, have been tried at Horton in the practice of malaria-therapy. The one selected as the most satisfactory from all points of view is the so-called "Madagascar" strain at present in use. This strain was isolated originally in 1925 from the blood of a lascar working on a ship coming from Madagascar. This strain has proved itself therefore to be a reliable and certain therapeutic agent for malaria-therapy, and one which is easy to transmit both by blood and mosquito inoculation. The official procedure employed for the supply and distribution of infective material for malaria-therapy in England and Wales has proved highly satisfactory. On each occasion on which infective material is supplied, it is accompanied by a card to be filled in at the time of inoculation, and returned later to the Ministry of Health for record. With regard to the value of malaria-therapy in the treatment of general paresis, the Board of Control still concur with the views expressed in the report of Meagher (1929):—"The treatment has been found to produce beneficial results, which are specifically due to the treatment, and which cannot be attributed to any other cause."

Supply of Mosquitoes

Anopheles maculipennis var. *atroparvus*, an indigenous species of mosquito which breeds freely in captivity, is the insect of choice for the work of malaria transmission in England. When mosquitoes are needed, the usual procedure is to collect 100-200 pupæ from the breedingpens in the insectarium. These are put into clean water in a glass vessel, which is placed in a breeding cage in the hot room. The insects which have emerged are collected from the cage as required. It has been found that freshly-hatched females of this species do not feed so greedily as do older ones, and that their first blood meal is commonly a small one. For this reason, as a rule the laboratory-bred insects are not allowed to feed upon an infective patient until they have already had one or more blood meals, usually on a rabbit. Those not required for immediate use are stored in cages in an outhouse, and are allowed to feed on a rabbit at appropriate intervals. When required for transmission work, the insects are placed in the hot room for 48 hours so that any previous blood meal is completely digested, after which they will usually feed readily, especially if they have been deprived of water for 24 hours.

Infecting the Mosquitoes

A suitable parasite carrier is selected from among the patients available, and a batch of mosquitoes is fed upon him on one or more occasions. When a suitable case is found, a batch of about 100-200 mosquitoes are allowed to feed on it. The jars used for feeding purposes are cylindrical, of thick glass

with a heavily flanged mouth. Over the mouth of each jar is tied a piece of mosquito netting having an opening in the middle about the size of the diameter of a test-tube. The insects are captured in test-tubes and transferred through the opening into the jar. The mouths of the netting-covered jars are applied to the outer surface of the patient's thigh and pressed firmly against the skin. When the insects have been starved for about a couple of days the majority will usually take a blood meal within about twenty minutes. After the insects have received an infecting feed, they are stored in gauze cages at temperatures ranging from 70° to 80° F. (21°-27° C.) to allow of the development of the parasite in those that have acquired a plasmodial infection. To ensure that conditions are favourable for the prolonged survival of the insects at these temperatures, a relative humidity of about 80 per cent. or over is maintained.

In the earlier experiments with the incubator, raisins, dates, bananas, etc., were provided for the insects to feed upon in the intervals between blood meals. It was soon found, as noted by numerous other workers, that many of the mosquitoes so fed developed an infection with bacteria and moulds in their gut and tissues. This usually resulted in a heavy death rate. It was also found that insects which had been allowed to feed on such a diet showed less inclination to take a blood meal subsequently than did insects which had been fed on blood only. For these reasons, in all the later work blood meals were provided either from man or from rabbits. When *A. maculipennis* var. *atroparvus* is kept at a temperature of about 79° F. (26° C.), a large blood meal is digested in about 48 hours, and, unless the insects are fed at least every second day, a high death rate occurs at this temperature. The appearance of sporozoites in the salivary glands of the mosquito under the laboratory conditions described, usually takes about 10 days with *P. vivax*, 12 days with *P. falciparum*, and 15 days with *P. ovale*. A few days after the sporozoites are first detected, the insects are used for the transmission of the infection.

Infection by Mosquitoes

When a request is received for the transmission of malarial infection by mosquitoes, about fifteen to twenty insects, starved for forty-eight hours and free from blood, are placed in a feeding jar and taken by a trained assistant to the hospital where the patient is. The mosquitoes are given an opportunity of biting by applying the gauze-covered end of the feeding jar to the external surface of the patient's thigh (*vide supra*). To be absolutely certain that the transmission will be effected, an attempt is made to get at least ten mosquitoes to bite, but with the heavily infected insects commonly used, a much smaller number would be sufficient. After biting, the insects are brought back again to the laboratory. Some of those showing evidence of a blood meal are dissected to confirm the presence of sporozoites in their salivary glands, and so show that infective material had been inoculated during biting. The incubation period of the primary attack after an infection with the Madagascar strain of *P. vivax* is transmitted by mosquito bite, usually varies from one to three weeks with a mean of about fourteen days.

Provision of Infective Blood

The blood used for the inoculation of benign tertian infections is taken from a patient whose blood shows plentiful parasites, say at least 10-20 in 25 microscopic fields of an ordinary thin film. If the patient to be inoculated is present when the blood is withdrawn, a quantity of about 5 c.c. is immediately injected intramuscularly, and the area of inoculation gently massaged to disperse the blood. If, however, the blood has to be despatched to another hospital, it is defibrinated first. The incubation period of the primary attack after blood inoculation with the Madagascar strain of *P. vivax*, usually varies from one to two weeks, with a mean of about 11 days.

FORTY-HOUR WEEK AT PARIS DEPARTMENT STORES.—The large department stores of Paris have come to an agreement to close on Mondays in order to apply the forty-hour week law that operates in France. This is taken to suggest that a recent decree allowing employees' hours to be spread over five and a half days instead of five has been unworkable. The position is to be reviewed again in September.

Ministry of Health Annual Report

IN the nineteenth annual report of the Ministry of Health, issued recently (H.M. Stationery Office, price 5s.), it is revealed that the total expenditure of the Ministry during 1937-38 was £147,300,000, £69,800,000 of which was voted by Parliament and £77,500,000 in respect of the financial obligations of the Health Insurance and Contributory Pensions Schemes. The following are some of the details given in the report.

For some years the securing of a reduction in the stubbornly static rate of maternal mortality has been a major objective in health work, and it is satisfactory to record a further and substantial decline during the year under review. The rate for 1937 reached the record low level of 3.11 per thousand births; this compares with rates of 3.65 and 3.94 for 1936 and 1935 respectively. The rate for puerperal sepsis in 1937 (included in the figure of 3.11) gives also a record low level of 0.94 per thousand births as compared with a rate of 1.34 for 1936 and 1.61 for 1935. The standardised death rates from tuberculosis in England and Wales for 1936 were 525 for pulmonary tuberculosis and 132 for non-pulmonary tuberculosis, and for 1937, 523 and 134. These compare with a standardised yearly death rate in the decade 1901 to 1910 for pulmonary tuberculosis of 1,143 and for non-pulmonary tuberculosis of 503 per million population. These figures may be considered to reflect the results of the combined attack on tuberculosis by the improvement of environment including the great post-war housing achievements, by education in better habits of living, and by direct measures of prevention and treatment. Only four cases of smallpox were notified during the year, of which three were variola major and one variola minor. For the third year in succession there were no deaths from this disease. One death from smallpox occurred during the first quarter of 1938. In this case the patient was taken ill during a voyage to this country, and died after arrival. In 1936, the latest year for which complete information is at present available, 605,051 births were registered according to the vaccination officers' returns. Of these, 211,436 children, or 34.9 per cent. of the total, were successfully vaccinated, and declarations of conscientious objection were made in respect of 303,624 children, or 50.2 per cent. of the total. Some details of outbreaks of typhoid fever at Croydon in October and November 1937 are given, in which 310 cases were notified, forty-two being fatal. The report of a public local inquiry included, among certain points of criticism, that there was misunderstanding and lack of communication between the responsible officers of the town council in connexion with the work.

Food and Drugs

The Food and Drugs Bill, which was introduced into Parliament in 1938, is based on the Third Interim Report of the Local Government and Public Health Consolidation committee. It consolidates, with amendments, the existing legislation relating to food and directed to the safeguarding of public health and the protection of purchasers against fraud, but excludes the Sale of Food (Weights and Measures) Act, 1926. The number of samples of food and drugs reported upon by public analysts in England and Wales during 1937 was 151,370, an increase of 4,932 on the number for the previous year (itself a record), and an increase of over 20 per cent. on the number in 1927. The number of samples found adulterated or not up to standard was 8,401, or 5.5 per cent., as against 5.3 per cent. in 1936 and 5.5 per cent. in 1935. The number of samples of drugs examined was 6,695, of which 340 were found to be adulterated or not up to standard. Details are given of some of the adulterations found in samples examined. Reported contraventions of the Public Health (Preservatives, etc., in Food) Regulations numbered 389, of which 211 related to sausages. Under the Therapeutic Substances Act, 1925, five new licences to import were issued during the year, in one case for the purposes of scientific research. The total number of licences in force on March 31, 1938, was 125, of which 51 were licences to manufacture for sale, 53 were import licences and 21 were licences to import for the purpose of scientific research.

National Health Insurance

The year 1937 marked the completion of a quarter of a century of National Health Insurance. In the course of twenty-five years no less than £565 millions has been expended in benefits, of which £202 millions represents sickness benefit, £94 millions disablement benefit, £35 millions maternity benefit, £194 millions medical benefit and £40 millions the provision for a large proportion of the insured population of such other benefits as dental and ophthalmic treatment, medical and surgical appliances, convalescent treatment, etc. During the year 1937 there was a further considerable increase in the number of persons insured under the National Health Insurance scheme and also in the amounts received by way of contributions. At the end of the year there were 16,793,000 insured persons, as compared with 16,398,000 at the end of 1936, an increase of 2.4 per cent., while the total amount of contributions received in 1937 was £25,088,000, which was £815,000 (3.4 per cent.) more than the amount received during 1936. In December 1937 the Royal Assent was given to the National Health Insurance (Juvenile Contributors and Young Persons) Act, 1937, which provides medical benefit for boys and girls who, between school-leaving age and age 16, are employed within the meaning of the National Health Insurance Acts. Medical benefit became available to these juvenile contributors as from April 4, 1938. The number of beneficiaries at the outset is estimated to be about a million. In 1937 about 16,138,000 insured persons were entitled to medical benefit. They were attended by about 16,000 doctors, and they obtained their medicines and appliances, in so far as these were not supplied by the doctors, from about 12,000 chemists' shops. The total expenditure on medical benefit was £9,872,500, of which insurance doctors received over £7,200,100 for attending and treating insured persons, and insurance chemists received £2,195,700 for the supply of drugs and appliances. Payments to insurance chemists in 1937 for drugs and appliances supplied to insured persons were made under the revised agreement which came into operation on January 1, 1936. The cost of drugs and appliances was met in full, but it was necessary to discount by rather less than 7 per cent. the dispensing fees payable. The number of insurance prescriptions dispensed increased from 63,249,000 in 1936 to 65,792,000 in 1937, and the chemists' accounts from £2,146,748 to £2,278,297. The average number of prescriptions issued per insured person entitled to supplies of drugs increased from 4.72 to 4.75 and the corresponding cost from 3s. 1½d. to 3s. 2d. The average ingredient cost (in pence) per prescription rose from 3.784d. to 3.949d., owing partly to a general increase in the cost of important drugs and partly to the growing use of new and expensive drugs. It has been reported that in some cases a single patient has received treatment estimated to cost as much as £240 a year in drugs alone.

Chemists' Payment Withheld

The number of cases in which money was withheld from insurance chemists on account of breaches of their terms of service and the total amount withheld were 161 and £203 5s. 6d., compared with 119 and £171 3s. in 1936 and 175 and £239 10s. in 1935. Under the scheme for testing drugs and appliances 4,589 samples were tested, and inaccuracies considered to warrant the withholding of money for breaches of the terms of service were found in 158 cases. In 1938, therefore, over 10,580,000 insured persons (i.e., 72 per cent. of all members of approved societies and branches) are entitled to cash additional benefits and 13,416,000 (over 91 per cent. of the total membership) to treatment additional benefits. In addition, £29,808 has been allocated by societies during 1938 under Section 104 (3) of the National Health Insurance Act, 1936, which permits not only payments to "hospitals, dispensaries, or other charitable institutions, or for the supply of district nurses," but also payments "for the purposes of medical research to institutions approved by the Minister"; advantage has been taken of this provision by some societies to make donations to the Empire Rheumatism Council, a body constituted in October 1936 to organise research throughout the British Empire into the causes and means of treatment of rheumatic disease.

New U.S.A. Food, Drug and Cosmetic Law

AFTER many years of discussion, the food and drug administration in the United States of America, in its relation to industry, was greatly strengthened when on June 25 President Roosevelt signed the new Federal Food, Drug and Cosmetic Act. Its general provisions will become effective in twelve months' time, but there are certain changes which do come into force at once. Dealing with these points in an editorial article the "American Journal of Pharmacy" states the new law has for its principal differences from the Federal Food and Drugs Act of June 30, 1906, so far as its drug features are concerned:—

Brings all cosmetics except toilet soaps under control; outlaws cosmetics which may be injurious to health, except poisonous coal-tar hair dyes which bear warning labels; prohibits false or misleading labelling.

Brings under control drugs used in the diagnosis of disease and drugs intended to affect the structure or any function of the body.

Brings therapeutic devices under control, and subjects them to the same general requirements as are set up for drugs.

Prohibits traffic in drugs and devices which are dangerous to health under the conditions of use prescribed in the labelling.

Prohibits traffic in new drugs unless such drugs have been adequately tested to show that they are safe for use under the conditions of use prescribed in their labelling; authorises exemption from this requirement of drugs intended solely for investigational use by qualified scientific experts.

Makes the Homeopathic Pharmacopœia of the United States the legal standard for homeopathic drugs.

Requires labels of official drugs—i.e. drugs recognised in the U.S. Pharmacopœia, National Formulary or Homeopathic Pharmacopœia of the United States—to reveal any differences of strength, quality or purity from the official standards. (The old law requires merely that the label bear a true statement of the strength, quality and purity of the drug, without showing the difference from the official standard.)

Requires drugs intended for use by man to bear labels warning against habit formation if they contain any of a list of narcotic or hypnotic, habit-forming substances, or any derivative of any such substance which possesses the same properties.

Requires the labelling of drugs and devices to bear adequate directions for use, but authorises regulations exempting drugs and devices from this requirement where it is not necessary for the protection of the public health.

Requires the labelling of drugs and devices to bear warnings against probable misuse which may be dangerous to health.

Requires special precautionary labelling for drugs that are liable to deterioration.

Does not contain the provision in the old law under which the Government must prove that false claims of curative effect on the labels of patent medicines were made with wilful intent to deceive.

Requires official drugs to be packaged and labelled as prescribed by the Pharmacopœias and Formulary.

Defines non-official drugs as illegal if the standard of strength differs from the standard claimed. (The old law prohibits only those which *fall below* the strength claimed.)

Requires that antiseptics possess germicidal power.

Requires the labels of non-official drugs to list the names of the active ingredients, and in addition to show the quantity or proportion of certain specified substances. Authorises regulations prescribing exemptions from this requirement when compliance is impracticable.

Prescribes the use of containers for food, drugs and cosmetics which may render the contents injurious to health.

Prohibits traffic in food, drugs and cosmetics which have been prepared or handled under insanitary conditions that may contaminate them with filth or that may render them injurious to health.

Forbids the use of uncertified coal-tar colours in food, drugs and cosmetics other than hair dyes.

Proscribes slack filling of containers for foods, drugs and cosmetics, and outlaws the use of deceptive containers.

Authorises factory inspection of establishments producing food, drugs, devices and cosmetics for interstate shipment.

Requires that part of samples collected by the Government for analysis be given to the manufacturer on request, but provides exemption from this requirement to the extent necessary for proper administration of the Act.

Authorises the Government to charge fees for the certification of coal-tar colours in amounts necessary to defray the expenses of the service.

Limits seizure for misbranding to a single interstate shipment of the product unless the misbranding has been the subject of a prior court decision in favour of the Government, or unless the misbranded article is dangerous to health, or its labelling is fraudulent or would be in a material respect misleading to the injury or damage of the purchaser or consumer. Authorises consolidation of multiple seizure cases (seizures of two or more interstate shipments of identical goods from the same shipper) for trial in a single jurisdiction. Also authorises such consolidated cases, as well as cases involving seizure of a single interstate shipment for misbranding, to be removed for trial to any district agreed upon by stipulation between the Government and the shipper or owner of the seized goods. In case of failure to reach such an agreement, the shipper or owner of the goods may apply to the court in which the seizure was made, and the court is required, unless good cause to the contrary is shown, to specify a district of reasonable proximity to the applicant's principal place of business in which the case will be tried. (The old law places no limitation on the number of shipments of illegal goods which may be seized; contains no provision for change of venue for trial. Seizure cases are tried in the district in which seizure occurs, which ordinarily is the district to which the goods have been shipped for sale and consumption.)

Provides for a judicial review in the United States Circuit Court of Appeals to determine the validity of certain regulations. This form of review is an addition to and not in substitution for established forms of review through equity proceedings and proceedings under the Declaratory Judgment Act.

PROVISIONS WHICH TAKE EFFECT IMMEDIATELY

Immediately upon approval of the Act by the President the following provisions became effective:

The prohibition against drugs which are dangerous to health when used in the dosage, or with the frequency or duration prescribed, recommended or suggested in the labelling.

The prohibition against the introduction of new drugs before an application for such introduction becomes effective.

The prohibition against cosmetics which may be injurious to users under the conditions of use prescribed in the labelling or under such conditions as are customary or usual. However, poisonous coal-tar hair dyes which would be exempted under the proviso of this requirement if they bore the warning label prescribed by the statute will not be subject to action by reason of their failure to bear the prescribed warning until ninety days after the date of approval.

Prescription Problem

In the Educational Number of the *C. & D.* (August 13, p. 165) students were invited to test their skill in reading a prescription sent to us by one of our subscribers, and a transcription is given below.

Magnesium trisilicate	gr x
Mucil(a)ge tragacan	qs
Aq chlor(o)f	ad 3ss
3ss 4 hrs, pc	
Mitte xvj	tales doses

The chief difficulty proved to be the first ingredient, though several who sent in replies misread the second one. No competitor was correct with all the ingredients.

Trade Report

Where possible scales of prices of chemicals are given for bulk down to small quantities. Prices recorded for crude drugs, essential and fixed oils and coal tar products are for fair sized wholesale quantities. Qualities of chemicals, drugs, essential and fixed oils, etc., vary, and selected brands or grades would be at higher values

28 Essex Street, W.C.2, August 18

THE PHARMACEUTICAL CHEMICAL, drug and essential oil markets have experienced this week a quietness that is not entirely explained by seasonal considerations. Practically all commodities are implicated, with one notable exception, and the business that has been done has been purely of a routine character, or in satisfaction of immediate wants. There are indications that the cautiousness of buyers is in large measure due to the political situation or, more accurately, to the various political situations, of which the position in Central Europe is possibly the most pressing. The very nature of the exception referred to seems to give further indication of this preoccupation with diplomatic uncertainties, for substantial buying of EPHEDRINE is reported, and this chiefly on the part of large buyers, who evidently fear a rise. In the CRUDE DRUGS section there is little to comment upon, as movements have been few and slight. CURAÇAO ALOES continues firm, though Cape is easy at the prices quoted. New crop CHAMOMILES, first pickings, have advanced from last week's figure. Portuguese ERGOT is still very firm; Spanish is quoted higher, but the figures must be taken as nominal, since it is doubtful whether deliveries would be effected at the prices named; Polish has sold fairly well and is a shade firmer in consequence. IPECACUANHA, MATTO GROSSO (other varieties very scarce) and SENECA continue very firm forward. Some offers of Chinese MENTHOL have been received from the source. In the ESSENTIAL OILS markets, dealers speak of the purchases made as being of "retail" proportions. Lack of business has been responsible for an easing of the price of ANISE (STAR). Though commerce in Sicilian LEMON has been no more brisk than last week, shipment prices have hardened; spot stocks of this commodity are low. CAJUPUT and CITRONELLA, shipment, are definitely firmer, and CANANGA, shipment, easier. SPEARMINT is firm. American PEPPERMINT continues firm and some offers of Bulgarian and Russian have been received. We are not yet in a position to give prices of new-crop LAVENDER, but they are expected shortly.

Exchange Rates on London

The following is a list of the chief Continental and other exchange rates at the opening on Thursday morning:—

Centre	Quoted	Par	August 11	August 18
Amsterdam ...	Fls. to £	12.107	8.95½	8.93½
Berlin ...	Mks. to £	20.43	12.17	12.17
Brussels ...	Belgas to £	nominal	28.91	29.00
Copenhagen ...	Kr. to £	18.159	22.40	22.40
Lisbon ...	Esc. to £	110	110 3/8	110 3/8
Madrid ...	Ptas. to £	25.24½	nominal	nominal
Milan ...	Lire to £	92.46	92 3/8	92 3/8
Montreal ...	Dols. to £	4.86½	4.90	4.90½
New York ...	Dols. to £	nominal	4.87½	4.88 3/8
Oslo ...	Kr. to £	18.159	19.90	19.90
Paris ...	Fr. to £	124.21	178 3/8	178 3/8
Prague ...	Kr. to £	164.25	141½	141½
Stockholm ...	Kr. to £	18.150	19.40	19.40
Warsaw ...	Zloty to £	43.38	26	25 3/8
Zurich ...	Frs. to £	25.2115	21.32½	21.30½

Bank rate 2 per cent.

Pharmaceutical Chemicals, etc.

ASPIRIN.—Prices (makers' and dealers') continue steady: home trade, ten cwt., 2s. 7d.; five cwt., 2s. 8d.; one cwt., 2s. 8½d.; 28 lb., 3s.; 14 lb., 3s. 1½d.; 7 lb., 3s. 2½d.; 4 lb., 3s. 4½d.; 1 lb., 3s. 7d. per lb. Bulk packing free, net, carriage paid. Contracts over twelve months, minimum one ton; over six months, less than one ton.

BENZOIC ACID (B.P.).—Quiet and steady at makers' prices: five cwt., 1s. 7½d.; one cwt., 1s. 8d.; smaller parcels, from 1s. 9d. to 2s. 2d. per lb., ex store, as to quantity.

BROMIDES.—Business continues steady at the makers' scales of prices. POTASSIUM, B.P., five cwt., 1s. 8d.; one cwt., 1s. 9d.; 28 lb., 2s. per lb. SODIUM, B.P., five cwt., 1s. 10d.; one cwt., 1s. 11d.; 28 lb., 2s. 2d. per lb. AMMONIUM, B.P., five cwt., 1s. 11d.; one cwt., 2s.; 28 lb., 2s. 3d. per lb. net. Resale clause applies. 28-lb. parcels and one-cwt. cases free. Smaller quantities than 28 lb. at higher prices. Export quotations are maintained as follows: POTASSIUM, B.P., five cwt., 1s. 4d.; one cwt., 1s. 4½d. SODIUM, B.P., five cwt., 1s. 5d.; one cwt., 1s. 5½d. AMMONIUM, B.P., five cwt., 1s. 6½d.; one cwt., 1s. 7d. per lb., f.o.b.

CITRIC ACID (B.P. CRYSTALS).—In fairly good demand; prices steady; British material quoted at 1s. 0½d. per lb., less 5 per cent.

discount, nominal and without engagement. Dealers' prices for imported material are competitive.

BISMUTH SALTS.—The American advances referred to in the introduction to last week's Trade Report were: subnitrate, 15 cents; subcarbonate, 20 cents per lb. British makers will not increase the price of subnitrate, which was advanced on April 22; alteration to the carbonate price, if any is decided upon, will apply in the home market only. The following scale of prices applies:—

	Net Monthly Account			Net 14 days	
	Under 4 lb.	4 lb. and under 8 lb.	8 lb. and under 28 lb.	28 lb. and under 1 cwt.	Not less than 1 cwt.*
Carbonate ...	s. d. 8 6	s. d. 8 0	s. d. 7 3	s. d. 6 9	s. d. 6 6
(Home Trade only)					
Citrate ...	11 10	11 4	10 7	10 1	9 10
Nitrate Cryst. ...	6 8	6 2	5 5	4 11	4 8
Oxide ...	12 11	12 5	11 8	11 2	10 11
Salicylate ...	10 0	9 6	8 9	8 3	8 0
Subchloride ...	12 8	12 2	11 5	10 11	10 8
Subgallate ...	9 8	9 2	8 5	7 11	7 8
Subnitrate ...	7 10	7 4	6 7	6 1	5 10

*Contracts are booked for 1 cwt. and upwards for delivery over three months and are subject to a rise and fall clause. A rebate of 3d. per lb. is allowed on sales of not less than 2 cwt. (assorted if required) provided delivery is completed within three months. All deliveries ex contract are sold on net cash 14 days' terms.

CREAM OF TARTAR.—Business continuing fairly good at prices which remain steady: British material, 99 to 100 per cent., 92s. per cwt., less 2½ per cent. discount. Dealers' prices for foreign material competitive.

EPHEDRINE.—Good inquiry for hydrochloride, B.P. Makers' prices for minimum 1,000 lots: 6s. to 7s. per oz., as to size of parcel. Alkaloid, 7s. 9d. to 8s. 6d. per oz.

GUAIACOL CARBONATE.—Dealers' prices keen at around 8s. 10d. per lb.; bulk quantities obtainable below this figure.

GUAIACOL (CRYSTALS).—Prices steady: 9s. 10d. per lb. in 14-lb. jars; 9s. 10½d. in 7-lb. bottles; 10s. 3½d. per lb. in 1-lb. bottles.

HEXAMINE.—Makers' prices for bulk quantities keen: B.P. powder, about 1s. 2d.; free-running crystals, from 1s. 3d. to 1s. 6d. per lb., carriage paid, for bulk lots. Dealers quote: free-running crystals, 1s. 4d. for quantities of one cwt. and over; 1s. 8d. for 14-lb. lots, and up to 2s. for smaller parcels, carriage paid.

IODIDES.—Makers' prices for salts steady at the recent advances. POTASSIUM, B.P.—Not less than 1 cwt., 5s. 3d.; not less than 28 lb., 5s. 6d.; not less than 14 lb., 5s. 9d.; not less than 7 lb., 6s. 3d.; not less than 4 lb., 6s. 9d.; smaller quantities, 7s. 3d. per lb. SODIUM, B.P.—Not less than 28 lb., 6s. 6d.; not less than 14 lb., 6s. 10d.; not less than 7 lb., 7s. 4d.; not less than 4 lb., 8s.; smaller quantities, 8s. 10d. per lb. IODINE, B.P., RESUBLIMED.—Not less than 1 cwt., 5s. 9d.; not less than 28 lb., 6s.; not less than 14 lb., 6s. 3d.; not less than 7 lb., 6s. 9d.; not less than 4 lb., 7s. 5d.; smaller quantities, 8s. 2d. per lb. IODOFORM, B.P., CRYST., PRECIP. or POWDER.—Not less than 28 lb., 8s. 3d.; not less than 14 lb., 8s. 7d.; not less than 7 lb., 9s. 3d.; not less than 4 lb., 10s. 1d.; smaller quantities, 10s. 11d. per lb. Contracts for 1 cwt. and upwards (assorted if required) with fall clause, for delivery as required during four months. 28-lb. tins and 1-cwt. cases free. All bottles are charged, but will be credited in full if returned, carriage paid, in good condition within three months. Carriage paid on any quantity. It is a condition of sale that buyers undertake not to resell any quantity of the above products at prices or terms below the scale for any such quantity current at the time the resale is made. The previous alteration in prices was on August 9, 1937.

METHYL SALICYLATE.—Quiet, steady: spot, ten cwt., 1s. 1½d.; five cwt., 1s. 2d.; one cwt., 1s. 2½d.; less than one cwt., 1s. 3d.; small quantities, in bottles, up to 2s. per lb.

METHYL SULPHONAL.—Continues dull, with dealers offering at keen prices: two cwt., about 19s. 9d.; one cwt., 19s. 9½d.; 56 lb., 20s. 2½d.; small parcels, up to 20s. 8d. per lb.

PARA-FORMALDEHYDE.—Moderate inquiry, market steady: 100 per cent. powder, quantities in kegs, 1s.; smaller parcels, up to 1s. 4½d. per lb., as to quantity.

PHENACETIN.—Quiet, but prices steady: crystals or powder, bulk quantities, 2s. 6d.; smaller parcels, 2s. 7½d. to 3s. per lb., as to quantity.

POTASSIUM SULPHOGUAIACOLATE.—Slow and unchanged at from 6s. 1d. to 6s. 6d. per lb., as to quantity.

QUININE SALTS.—Convention prices well maintained: sulphate, 2s. 2d.; bisulphate, 2s. 2d.; ethyl carbonate, 2s. 9½d.; salicylate, 2s. 10½d.; hydrochloride, 2s. 8½d.; dihydrochloride, 3s.; hydrobromide, 2s. 8½d.; dihydrobromide, 3s.; valerianate, 3s. 8d.; hydrophosphate, 4s.; alkaloid, 3s. 0½d. per oz., carriage paid on bulk quantities; 100-oz. tins free, smaller packages extra.

RESORCIN.—Makers' home trade prices steady and unchanged: crystals, one cwt., 5s. 5d.; 56 lb., 5s. 6d.; 28 lb., 5s. 7d.; 14 lb., 5s. 9d.; 7 lb., 6s.; smaller quantities, up to 7s. per lb.

SALICYLIC ACID (B.P.).—Quiet and prices steady: five cwt., 1s. 7d.; one cwt., 1s. 7½d.; 28 lb., 1s. 10d.; 14 lb., 1s. 11½d.; 7 lb., 2s. 0½d.; 4 lb., 2s. 2½d. per lb.

STRYCHNINE SALTS.—Home makers' scale of prices for home trade and for export to British Empire destinations (excluding Canada) continue at the reduction recently recorded. Contracts will not be accepted at current prices.

	Under 100 oz.	Under 500 oz.	500 oz. and over
	Home or f.o.b. British Empire	Home or c.i.f. British Empire	Home or c.i.f. British Empire
Pure Crystals	Per oz. s. d.	Per oz. s. d.	Per oz. s. d.
" Præcip.	1 3½	1 3½	1 3
Acetate	1 10	1 10	1 8
Arseniate	1 9	1 9	1 7
Arsenite	1 10	1 10	1 8
Bisulphate	0 10	0 10	0 9½
Hydrochloride	1 1½	1 1½	1 1
Hypophosphite	3 4	3 4	3 2
Nitrate Crystals	1 1½	1 1½	1 1
" Powder	1 1½	1 1½	1 1
" No. 2	0 10½	0 10½	0 9½
Phosphate	2 1	2 1	1 11
Sulphate Neut. Cryst.	1 0	1 0	0 11½
" Powder	1 0	1 0	0 11½
" " No. 2	0 10½	0 10½	0 9½

25-oz. tins free. Export cases free. 1-oz. bottles 2d. each extra. For export—1 per cent. cash in ten days. Terms: net, 30 days. Contracts cannot be accepted. For export: buyers held covered against price reduction for ten days after arrival of steamer at port of destination.

SULPHONAL.—A dull spot market, with prices competitive: crystals or powder, two cwt., 15s. 5½d.; one cwt., 15s. 10½d.; 56 lb., 16s. 1d.; smaller parcels, up to 16s. 6d. per lb.

TARTARIC ACID (B.P. CRYSTALS).—A fair amount of business continues to pass, and prices are steady: British makers quote at 1s. 1½d. per lb., less 5 per cent. discount, dealers offering foreign materials at competitive prices.

THEOBROMINE.—Prices for Continental, pure, two cwt., 7s. 10d.; one cwt., 8s.; 56 lb., 8s. 2d.; smaller quantities, 8s. 4d. per lb.; sodium salicylate, two cwt., 6s. 3½d.; one cwt., 6s. 4½d.; 56 lb., 6s. 5½d.; smaller quantities, 6s. 6½d. per lb. delivered, 5-lb. tins free; smaller packages extra.

THYMOL.—Synthetic, fine white, one cwt., 6s.; 56 lb., 6s. 4d.; 28 lb., 6s. 9d.; less than 28 lb., 7s. 6d. per lb., tins extra; ex ajowan seed, one cwt., 8s. 5d.; 56 lb., 8s. 10½d.; 28 lb., 9s. 5d.; 14 lb., 10s. 6d. per lb.

Crude Drugs, etc.

AEONITE ROOT (NAPELLUS).—Unchanged at 95s. per cwt., to arrive.

AGAR.—Steady routine demand, prices unchanged: spot, Kobe, No. 1, 3s. 1½d. to 3s. 3d.; No. 2, 2s. 11d. Yokohama, No. 1, 2s. 10d. per lb.; shipment, Kobe, No. 1, August-September, 2s. 10½d. to 2s. 11d.; No. 2, 2s. 7d. Yokohama, No. 1, 2s. 7½d. per lb., c.i.f. Next season's crop, Kobe, No. 1, offered at 2s. 8½d. per lb., c.i.f.

ALOE.—Curaçao continues very firm; Cape prices are a little below those previously quoted: Cape, spot, 57s. 6d. to 60s.; shipment, easy at 55s. per cwt., c.i.f. Curaçao, spot, around 167s. 6d.; shipment, from 150s. upwards per cwt., c.i.f., as to seller.

BUCHU.—Market quiet, but about steady, with occasional parcels finding buyers: spot, 1s. 6d. to 1s. 7½d. per lb., as to quality; shipment, around 1s. 5d. per lb., c.i.f.

CAMPOR.—Only routine business has been passing and prices are unchanged: Japanese monopoly, BB brand, £7 10s. per 100 lb.; this price now officially quoted; Japanese, natural, spot, tablets, 2s. 6½d.; powder, 2s. 3d.; slabs, 2s. 2½d. per lb., ex store; shipment, tablets, 2s. 2d.; powder, 1s. 11½d.; slabs, 1s. 11½d. per lb., c.i.f.; English refined flowers, one cwt., 3s. 1d.; 28 lb., 3s. 2d.; small lots, 3s. 3d. per lb. Transparent tablets, 4 oz., 8 oz. and 16 oz., 3s. 4d.; 1 oz. and 2 oz., 3s. 5d.; ½ oz., ½ oz. and ¼ oz., 3s. 6d. per lb.

CANTHARIDES.—In small demand: Chinese, spot, 2s. to 2s. 2d.; shipment, 1s. 7d. per lb., c.i.f.

CARDAMOMS.—A little firmer forward: Mangalore, spot, 3s. 4½d.; shipment, 2s. 9d. Aleppy, spot, 3s. 7d.; shipment, 2s. 11d. Aleppy greens, this season's, f.a.q., 2s. per lb., c.i.f.

CASCARA SAGRADA.—Spot prices very firm; shipment position unchanged from that previously reported: spot, 1936 peel, 58s. 6d.; 1937 peel, 57s. 6d. per cwt. An afloat parcel is still available at 50s. per cwt., landed and duty paid.

CASCARILLA.—Quill, on the spot, quoted at 1s. 4½d. per lb.

CASSIA FISTULA.—Available on the spot at 30s. per cwt.

CHAMOMILES.—New crop, first pickings, are quoted at 160s. per cwt., duty paid.

CLOVES.—Continuing quiet and steady: Madagascar, shipment, a shade firmer: Zanzibar, spot, 8½d.; shipment, August-September, 8½d. per lb., c.i.f. Madagascar, spot, in bond, 7½d.; shipment, August-September, 7½d. per lb., nominal, c.i.f.

The landings of Zanzibar in London during the week ended August 13 were *nil*, and the deliveries 41, leaving a stock of 1,351. From January 1 to date the landings of Zanzibar have been 1,904, and the deliveries 1,612. Landings of Madagascar for the week ended August 13 were *nil*, and the deliveries *nil*, leaving a stock of 1,349. From January 1 to date the landings of Madagascar have been 1,131 and the deliveries 1,858 packages.

COCONUT (DESICCATED).—A shade firmer on spot and forward: spot, fine, 17s.; medium, 17s. per cwt.; shipment, halves, August-September, 15s. 9d. per cwt., c.i.f.

COD-LIVER OIL.—A quiet tone prevails and small quantities are at about 90s. per barrel, c.i.f. London, for finest Lofoten quality.

DAMIANA LEAVES.—Price, ex store, around 9d. per lb.

ERGOT.—Portuguese, spot, 6s. to 6s. 3d.; to arrive, 5s. 9d. to 6s.; Spanish, nominal; Polish, rather firmer at from 3s. 6d. to 3s. 8d., as to seller.

GENTIAN.—Available at 33s. 6d. per cwt., ex store.

GINGER.—Quiet; prices easier: West African, spot, 26s. 6d.; for arrival; sellers, 24s. per cwt., c.i.f.

GUM ACACIA.—Quiet and unchanged: Kordofan, cleaned sorts, spot, 39s.; shipment, 36s. 6d. per cwt., c.i.f.

HENNA.—Good green leaves, 35s. per cwt.; brown, 30s.

HONEY.—Quiet, with a limited amount of routine business: new crop Jamaican, from 28s. for dark manufacturing to 45s. for pale set; Californian, duty paid, 52s. 6d.; Canadian, 55s. per cwt., ex store.

HYDRASTIS.—Inactive, with material to arrive offered at slightly easier prices: U.S.P., spot, 14s. 6d. to 14s. 9d.; shipment, 14s. per lb., c.i.f.; untested, spot, 14s. to 14s. 3d. per lb.

INSECT FLOWERS.—Dalmatian offered at 85s. to 90s. per cwt.; Japanese, 112s. per cwt.

IPÉCACUANHA.—Matto Grosso firm; very small spot stocks of other varieties: Matto Grosso, B.P., spot, 7s. to 7s. 3d.; shipment, 6s. 6d. to 7s. per lb., c.i.f., as to source and quality.

JALAP.—Quiet and easy. Spot, 13.3 per cent., 1s. 1d.; 10.5 per cent., 9½d. per lb.

KAMALA.—Quoted at 1s. 5d. per lb. (5.47 per cent. ash), ex store.

LAVENDER FLOWERS.—New crop flowers are now coming on to the market at higher prices: 120s. to 175s. per cwt., as to grade.

LOBELIA HERB.—Quoted at 6½d. to 7d. per lb., spot, according to seller; shipment, around 7d. per lb., c.i.f.

LYCOPodium.—Supplies are available on spot at 4s. 6d. per lb.

MENTHOL.—Selling is at a slow pace, but prices are steady. K/S brands, spot, 13s. 1½d. to 13s. 3d.; shipment, October-December, no offers from Japan, but speculative sellers quote 10s. 10½d. Chinese, spot, 12s. 9d.; shipment, September-October, 10s. 6d. per lb., c.i.f.

MERCURY.—Very small demand; prices unchanged. Shipment, 69 dollars per bottle, f.o.b., Continent; spot, £13 18s. to £13 18s. 6d. per bottle, ex store, London.

NUX VOMICA.—Cochin, washed and garbled, B.P., spot, 11s.; forward, 9s. per cwt., c.i.f.

OPIMUM.—Quiet and steady. Turkish, original cases of 170 lb., 13 per cent., 1s. 1d.; Iranian, 12 per cent., 1s. 1d. per unit, landed and duty paid.

ORANGE PEEL.—Bitter, quarters, available on spot at 9d. per lb.

PAPAIN.—A parcel of Ceylon No. 1 is available on spot at 1s. 5d. per lb.

PEPPER.—Values mainly steady, market quiet. Lampong, in bond, 2½d.; shipment, August-October, 2½d.; October-December, 2½d. (business done); January-March, 2½d., c.i.f. Tellicherry, spot, 4½d.; shipment, August-October, 3s., c.i.f. Aleppy, spot, 4½d.; shipment, August-October, 3s. 6d., c.i.f. White Muntok, in bond, 3½d.; shipment, August-October, 3½d.; October-December, 3½d., c.i.f. London Terminal Market: Black, August, 2½d.; October, 2½d.; December, 2½d.; March, 2½d. White, July, 3½d.; October, 3½d.; December, 4d.; March, 4½d. per lb.

PIMENTO.—Business dull; spot and forward prices are easier. Spot, 8d. per lb.; shipment, August-September, 62s. 6d. paid; September-October, 62s. paid per cwt., c.i.f.

PYRETHRUM.—Japanese, dealer at 100s. per cwt., c.i.f.

RHUBARB.—Steady consumer demand. Shensi, spot, unchanged at 4s. 6d. to 5s. for best quality; old, slightly wormy, 3s. 9d.; no shipment offers. Rough round, shipment, f.a.q., 1s. 6d.; inferior, 1s. 3½d. to 1s. 4½d. per lb., c.i.f.

RUBBER.—Now fairly steady at easier prices than those quoted last week. Standard smoked ribbed sheet, spot, 7½d.; shipment, August and September, 7½d.; October-December, 7½d.; January-March, 7½d.; April-June, 8d.

SENNA.—Fair inquiry has been experienced for Alexandrian, but prices of all varieties are unchanged at the quotations previously given.

SEEDS.—ANISE.—Spot, duty paid, Spanish, 57s. 6d.; Bulgarian, 39s.; Syrian, 38s. **CANARY.**—Firmer: Mazagan, 17s. 6d. spot, duty paid; 14s. 3d., c.i.f.; Morocco, 15s. 9d. spot, duty paid; 13s. 3d., c.i.f.; Turkish, 15s. 6d. spot, duty paid; Spanish, 25s. to 37s. 6d. spot, duty paid. **CARAWAY.**—Dutch, spot, 33s., duty paid; 28s. 6d. f.o.b., Holland. **CORIANDER.**—Firmer: Morocco, spot, offered at 18s. spot, duty paid; new crop, shipment, quoted at 14s. 6d., c.i.f. **CUMIN.**—Spot, Malta, 52s. 6d., duty free; Morocco, 50s., duty paid; shipment, 51s. 6d., c.i.f. **FENUGREEK.**—Morocco, spot, 12s. 6d., duty paid; shipment, 9s. 3d., c.i.f. **MUSTARD.**—English, 22s. to 32s. 6d., according to quality.

SENEGA.—Spot prices steady; forward quotations again firmer. Spot, 1s. 10½d. to 2s.; shipment, 1s. 9½d. to 1s. 10½d. per lb., c.i.f., as to seller.

SHELLAC.—Moderate, with prices a little lower. Spot, standard TN orange, 39s. to 42s.; for delivery, August, 39s. 6d.; October, 40s.; December, 41s.; sellers, for arrival, August-September, 38s., c.i.f.; fine orange, spot, 55s. to 80s.; pure button, 50s. to 52s. 6d. per cwt.

SQUILL.—New crop, white, available on spot at 25s. to 27s. 6d. per cwt.

TONKA BEANS.—Quiet as regards shipment business, but frosted Para quality in fair demand at 3s. per lb., ex store.

TRAGACANTH.—A small business continues in whites, first and second qualities, and in low-grade hoggy varieties. Finest selected white ribbon, £65; No. 1, white, £57 10s. to £60; No. 2, white, £50 to £54; No. 3, white, £35 to £42 10s.; amber leaf, £22; cleaned amber sorts, £16; brown to amber leaf, £11 10s.; red leaf, £9 to £10; hoggy, £6 to £7 per cwt., ex store.

WAXES.—Quiet, with only small offers finding buyers. **BEES'** quoted unchanged: Calcutta, bleached, spot, 125s.; shipment, August-September, 117s. 6d., c.i.f.; ordinary quality, spot, 97s. 6d.; shipment, August-September, 92s. per cwt., c.i.f. **Benguella**, in bond, 90s.; shipment, August-September, 87s., c.i.f. **Conakry**, spot, 100s.; shipment, August-September, 87s. 6d., c.i.f. **Dar-es-Salaam**, spot, 97s. 6d.; shipment, August-September, 97s. 6d., c.i.f. **CARNAUBA.**—Market continues steady, moderate inquiry: fatty grey, spot, 152s. 6d.; afloat, 147s. 6d.; shipment, August-September, 146s., c.i.f. **Chalky grey**, spot, 152s. 6d.; afloat, 146s.; shipment, August-September, 144s., c.i.f. **Primeira**, spot, good quality, 195s.; f.a.q., 182s. 6d.; afloat, 177s. 6d.; shipment, August-September, 175s., c.i.f. **Mediana**, spot, 180s.; shipment, 175s. per cwt., c.i.f.

Essential and Expressed Oils, etc.

The amount of business passing in this market continues notably small, both in total volume and in dimension of average sale.

ALMOND.—Little buying is being done and prices are unchanged: English-made, cwt. lots, 2s. 8d.; smaller parcels, up to 3s. 2d. per lb.; foreign, cwt. lots, 2s. 8d.; smaller parcels, up to 3s. 2d. per lb. **French bitter**, 6s. to 6s. 1½d. per lb.

ANISE (STAR).—The spot position continues fairly steady but the forward market is distinctly easier, probably due to the small volume of business passing: spot, leads, nominal; tins, 3s. 7½d.; drums, 3s. 6d. per lb., ex store; shipment, leads, not offered; tins, 3s.; drums, 2s. 11d. per lb., c.i.f.

BERGAMOT.—A small amount of business is reported in blended oils at less than the Consortium price, which remains unchanged at 14s. 9d. per lb., c.i.f., for bulk quantities. Genuine new-crop oil is quoted at 15s. to 15s. 6d. per lb., as to quantity.

BOIS DE ROSE.—Quiet and continuing steady: Brazilian, drums, ex store, 5s. 6d.; smaller repacked lots, up to 6s. per lb.

CAJUPUT.—The spot position remains unchanged, but shipment prices are noticeably firmer: spot, B.P., 2s. to 2s. 4½d. per lb., as to quantity.

CAMPHOR.—Chinese and Japanese scarce on spot, and business has been done at 110s., duty paid. The last forward price from Japan was 90s. per cwt., c.i.f.; no offers of Chinese.

CANANGA.—Quiet; no change in spot prices; shipment quotations slightly easier: spot, 4s. 10½d. to 5s. 6d., according to quantity and packing; shipment, 4s. 4½d. per lb., c.i.f.

CARAWAY.—Steady; dealers' prices unchanged: Dutch rectified, 7s. 3d. to 7s. 9d.; crude, 6s. 9d. to 7s. per lb., as to quantity, landed and duty paid.

CEDARWOOD.—Quiet and steady at the former levels: African, in drums, 11½d.; smaller packages, up to 1s. 4d. per lb. American, in drums, 11½d.; smaller packages, up to 1s. 4d. per lb.

CINNAMON LEAF.—Inactive; oil for shipment is obtainable at prices well below spot levels: Ceylon oil, repacked and filtered, 2s. 4½d. to 2s. 9d. per lb., ex store.

CITRONELLA.—About steady, with the shipment price for Ceylon rather firmer than last week: Ceylon, spot, drums, 1s. 5½d.; smaller parcels, up to 1s. 9d.; shipment, drums, 1s. 3½d. to 1s. 4d. per lb., c.i.f. Java, spot, drums, 1s. 10d. to 1s. 11d.; smaller parcels, up to 2s. 4d.; shipment, drums, around, 1s. 4½d. per lb., c.i.f.

CLOVE.—Demand of a routine character is maintained; prices are steady: Madagascar, spot, drums, 2s. 9d. per lb.; repacked in small parcels, 3s. to 3s. 3d. English, distilled, 4s. 10d. to 5s. per lb., as to quantity.

EUCALYPTUS.—Demand uncertain; prices unaltered: Australian, 70 to 75 per cent., tins, 1s. 4d. to 1s. 5d.; drums, 1s. 4d.; 80 to 85 per cent., drums, 1s. 9d. per lb., ex store, with higher prices for small lots; shipment, 70 to 75 per cent., tins, 1s. 2d.; drums, 1s. 1½d.; 80 to 85 per cent., 1s. 4½d. per lb., c.i.f.

GERANIUM.—The demand has been a little more lively and prices are steady: Algerian, for shipment, is firm at the figure given: Bourbon, spot, 11s. 7½d. to 12s. 4½d.; shipment, 10s. to 10s. 3d., c.i.f. Algerian, spot, 12s. 9d. to 13s.; shipment, 11s. 8d. to 11s. 10d. per lb., c.i.f.

GRAPE-FRUIT.—Unchanged: Californian, 10s. 3d. to 12s. Florida, 11s. to 12s. 6d. per lb., ex store, as to quantity.

Ho (SHIU).—Quiet and inactive; prices steady: spot, "improved" quality, 4s. to 4s. 1d.; "extra," in drums, 4s. 3d. per lb., ex store; shipment, "extra," 4s. per lb., c.i.f.

JUNIPER BERRY.—Steady and unchanged: spot, 3s. 3d. to 4s. per lb., as to quality and quantity.

LAVENDER.—No news of new-crop prices yet to hand, but there is no reason to modify the harvest reports given last week.

LEMON.—Continues inactive. Spot stocks are at a low total and much firmer shipment prices are quoted from the source, despite comparative absence of orders. Sicilian, spot, 11s. to 11s. 3d.; shipment, 10s. 6d. to 11s. 3d., as to seller and quantity; machine-made, 10s. 2d. per lb., c.i.f. Californian distilled, steady at 6s. 4d. per lb., in small drums, landed.

LEMONGRASS.—A quiet market without material change from the position last recorded: spot, 1s. 8d. to 2s. per lb., as to quantity; shipment, August-September, 1s. 4½d.; September-October, 1s. 5½d. per lb., c.i.f.

LIME.—Dull; no change in price: West Indian, distilled, spot, 21s. to 22s. per lb., as to quantity.

MANDARIN.—Steady and unchanged: spot, 20s. to 22s. per lb., as to quality; shipment, 19s. to 20s., c.i.f., for highest grade oil; cheaper grades from 17s. 6d. per lb.

NEROLI.—Quoted at 24s. 6d. to 27s. 6d. per oz., as to shipper.

NUTMEG.—Dutch and American oils steady at 5s. 4½d. per lb. for bulk lots; smaller parcels, up to 5s. 9d. per lb.

ORANGE.—There has been no movement in this commodity and prices are at the former levels: French Guinea, spot, in drums, 2s. 10½d.; repacked, in tins, 3s. 2d. to 3s. 4½d. per lb., ex store. Shipment, dull, with price nominal at 2s. 5d. per lb., c.i.f. Californian, spot, one case, 3s. 7½d.; two or more cases, 3s. 5d.; large drums not quoted; small drums, 3s. 4d. per lb., landed; cold-pressed, 5s. 3d. per lb., c.i.f., in cases.

PALMAROSA.—Quiet: spot, original packages, 8s. to 8s. 1½d.; shipment, 7s. 1½d. per lb., c.i.f.

PEPPERMINT.—The spot demand for Japanese has eased off recently, but prices remain very firm: spot, 4s. 9d. to 4s. 11d., as to brand; near afloat, small lots obtainable at 4s. 7½d.; shipment, September-October, offered from Japan at 4s. 7½d.; October-December, speculative sellers, 4s. 3d.; buyers, 4s. per lb., c.i.f. American natural oil, tins, unchanged at 2 dollars 25 cents to 2 dollars 35 cents per lb., c.i.f. Bulgarian is offered at 11s. per lb. and Russian at 7s. 6d. per lb., c.i.f.

PETITGRAIN.—The shipment price is firmer, owing to exchange variations: spot, cases, 3s. 9d. to 3s. 11d. per lb.; shipment, 3s. 2d. per lb., c.i.f. French oil, to come forward, offered at 600 francs per kilo, landed, in bulk quantities.

RAISIN SEED.—Californian quoted at 2s. 4d. to 2s. 6d. per lb., ex store.

ROSEMARY.—Quiet and prices steady: Spanish, 3s. to 3s. 7½d. per lb., as to quality and quantity; no shipment offers from source. Tunis, new crop, to come forward, 2s. 8d. to 2s. 10d. per lb., landed, as to quantity.

SANDALWOOD.—Genuine East Indian Mysore, in one-case lots, steady at 20s. 6d. per lb. Genuine East Indian, produced outside the province of Mysore, 18s. 9d. to 19s. 3d. per lb., c.i.f., in bulk quantities. English-made West Indian, 7s. 3d. per lb. Australian, steady at 15s. 3d. per lb., for 7-lb. tins; one case at 14s. 9d. and five cases at 14s. 6d. per lb.

SPEARMINT.—Continues firm at 9s. to 9s. 3d. per lb. for U.S.P. oil, spot; shipment, 8s. 4d. per lb., c.i.f.

WORMSEED.—Quiet and unchanged: U.S.P. oil, spot, 11s. 4d. to 11s. 6d.; shipment, 10s. 9d. per lb., c.i.f.

Correspondence

Correspondents may adopt an assumed name, but must in all cases furnish their real name and address to the Editor

The Proposed N.H.I. Contract

SIR,—Is the present contract being terminated by the chemists or the Ministry of Health? At the last N.P.U. Conference it was decided to await the effect of the extension of the National Health Insurance to juveniles before terminating the present contract. With every prospect of a substantial surplus during the next two years, why this sudden change of policy? It is to be hoped that the Pharmaceutical Committees realise the importance of the N.P.U. Conference called for September 21, and see that they are represented there.

Yours faithfully,
W. F. BLANK.

Northampton.

Tokalon Price-Protection Scheme

SIR,—We think the trade will be interested in the steps this company propose to take to eliminate the price-cutting of the new pack Tokalon which is now marketed. We are members of and co-operate wholeheartedly with the Proprietary Articles Trade Association in its price-maintenance work, which we are convinced is of the greatest benefit to the trade, particularly the retailer. We are now arranging to supplement and strengthen the price-protection of our goods by enforcing the patent provisions which attach to the new pack Poudre Tokalon. We wish, therefore, to make widely known the fact that new pack Poudre Tokalon is manufactured and sold under the provisions of British Letters Patent No. 393729 and that the sale at less than the prices fixed by the patentee (Tokalon, Ltd.) constitutes an infringement of the patent rights. Any retailer found to be selling new pack Poudre Tokalon at less than the minimum retail prices of 6d. and 1s. fixed by us and maintained through the P.A.T.A. will be notified of these conditions and informed that a continuance of the cutting will be considered to be an infringement of the letters patent and that the company's rights will be enforced by appropriate legal action without further notice. We feel sure that retail members of the P.A.T.A. will fully appreciate that the enforcement of this policy will constitute a noteworthy advance in the sphere of price-maintenance and fair trading with which this company desires to be identified.

Yours very truly,
TOKALON, LTD.,
E. J. SMITH, Director.

London, N.W.10.

SIR,—I would like to express my strong appreciation at the generous way in which Tokalon, Ltd., have taken back old-style stock, and to express the hope that their action will cause all chemists to give them strong support.

Yours faithfully,
A. C. WITHERS.

Clacton-on-Sea.

Tees-side Code of Ethics

SIR,—As the Tees-side "Code of Ethics," which is to be discussed at the Edinburgh meeting of the British Pharmaceutical Conference, has been adversely criticised in certain quarters because of a reference to remuneration, we should be glad if you would allow us to state our views. In a code of ethics we could not very well compatibly concern ourselves with prices, nor enter into the economics of the advisability, or otherwise, of having a national tariff for dispensing. We do think, however, that it is unethical and petty to dispense medicines, as many do, without remunerating themselves for their time and skill; as only by doing so can the business of a pharmacist be comfortably conducted and the public assured of a competent pharmaceutical service. Also how can the pharmacist expect to have the respect of the medical profession when he places little or no value on the peculiar professional service which he renders the State and the public. In his relations with the public the responsibilities which rest upon the pharmacist are as great as those resting on any other body of professional men. Even recently, in connexion with

air raid precautions, the State has decided that the pharmacist's professional service to the public is sufficiently important to outweigh the services he would render as a citizen. The lowness of dispensing charges is a matter of regret, and worthy of consideration by the Society, as it must one day affect very adversely the inclination on the part of the public to recruit it by apprentices. We should remember, it is not only for the commercial value of drugs we charge. Cheap drugs and cheap dispensing do not raise the demand and neither do they raise the status of the pharmacist nor give satisfaction to the public. In the present day everything is rising in price, from the raw material to that of labour, rent, etc. Why, then, should we be the first to lower prices, which the public do not ask for, and give our labour and skill for nothing, which we cannot afford? In our code of ethics we did no more than draw attention to what is, and should be, an accepted principle in all professions—which is: "The principle which ought to guide the pharmacist in the regulation of his charges is that remuneration should increase in proportion as the class of article makes greater demand on the knowledge obtained by his professional education." It is well that all should remember that any member endeavouring to increase his business by lower dispensing charges must recollect that he does it to the direct injury of his profession, and also that this is not to the true interest of the public. Hence our reference to remuneration in our code of ethics."

Yours faithfully,
R. MACDONALD MURRAY,
Secretary, Tees-side Branch of the
Pharmaceutical Society.

Middlesbrough.

Under Five Pharmacopœias

SIR,—I think the feelings of "Passabo" (*C. & D.*, August 13, p. 144) when he states that his passing of the examination is a circumstance for which he has never been able to account, must have been shared by a good many successful candidates. I remember I had exactly the same feelings when negotiating the Minor. "Recens" says that the examinations are now more scientific, and one can well imagine this when reading his further remarks on sterile preparations, vaccine bottles, autoclaves, and also the description on the next page of "A Pharmacy Student's Day." How many of the pharmacists of the old school would be able to attempt an examination on these details without a fresh course of instruction, and on the other hand how many of the present-day students would be able to spread a plaster with an adhesive margin? The tragic side, and one which touches us all, is that neither of these accomplishments is of any practical use to the pharmacist in a retail business to-day; the spreading of plasters is out of date and the preparation of vaccines is a job for the wholesale laboratory. As for the sterile preparation of dispensed medicines, if by this is intended those medicines which can be compounded on the dispensing counter from doctors' prescriptions, especially those such as the eye drops which are ladled into the eye out of a teaspoon, or the application which is dabbed on an open wound with any old piece of rag, the less said the better. On the whole, I think the old pharmacist could hold his own in respect of "manipulation," though he may not have had such a scientific training from a compulsory curriculum.

Yours faithfully,
OLDUN (14/8).

SIR,—After reading the short accounts written by pharmacists of their experiences as students "Under Five Pharmacopœias" (*C. & D.*, August 13, p. 143) it occurred to me that my own apprenticeship and student period fell in between two of them. That is to say, my early training as an apprentice commenced when the 1885 Pharmacopœia was in force, so that I was grounded and brought up on that issue, but before I was ready to enter for the Minor examination the 1898 B.P. came along. I had, therefore, to some extent to make a fresh start and to render myself familiar with the additions, omissions and

alterations which invariably occur when the B.P. is revised. I can confirm the statement of "Diogenes" that a "shot" at the examination very often came off; several of my fellow students of those days were successful at their first attempt after three months' grind at a college. At that time there was no compulsory curriculum, and as money was usually very scarce it was the object of every student to get his qualification at the earliest possible moment; in consequence the period of study was not looked on so much as a time for gaining knowledge, but as an unavoidable necessity in order to negotiate the last obstacle—that is to say, to secure the necessary certificate enabling one to start as a qualified chemist. I often wonder how the young people of to-day find the funds to pay for their living expenses, their college and examination fees under the new system, it must go as hard with some of them as it did with us when money values were on a different scale, or else they come from a class of more monied parents. So far as the comparative difficulty of the examination then and now is concerned, in spite of the extended syllabus, I think the conditions were more severe under the old method, because now the examination is divided into two parts, and in either part a candidate can enter for a referred subject again. But in the Minor examination all the theoretical subjects had to be taken in one morning or afternoon, as the case might be, and failure in any one meant failure in the whole, or worse still, without actually failing in any subject general weakness might bring failure on the aggregate, as I found out on my first attempt. There is no question that at the period when I was studying a large proportion of the work was a case of memorising—some of those who passed about the same date will call to mind the hours we spent over the natural orders, habitats and active constituents of the drugs listed under *Materia Medica*, the ingredients of B.P. preparations, and one favourite question in pharmacy used to be "Name some of the menstruums used in the Pharmacopœia, and give examples."

Yours faithfully,

UNDER TWO B.P.s (14/8).

SIR,—Your Educational Number (August 13) is, as usual, excellent and will prove a boon to many an aspirant to pharmaceutical, or even medical, distinction. To me the most distinctive feature is that entitled "Under Five Pharmacopœias," for it illustrates the paradox that the more scientific and "professional" the training the more commercial has become the actual everyday work of the modern pharmacist. I am an 1885 Pharmacopœia man myself, but on looking back I visualise my contemporaries as much more pharmacists, in the proper sense of the term, than the men in business to-day. True the candidate for examination nowadays must have a wider knowledge of many things, but is this "wider knowledge" likely to prove of much practical value to him in making a living? As things are, expert salesmanship is a subject of much more moment than bio-chemistry, physiology, or any of the higher flights so beloved of the present-day educationist. There is undoubtedly a crying need for a Chair of Cosmetics in the new Brunswick Square building, and I hope arrangements are being made to that end. In comparing the examinations of thirty or forty years ago with those of to-day one must bear in mind the difference in world conditions. When I read the enthralling account of a "Student's Day" in a modern school of pharmacy I thought naturally of my own student days. Then even schools of pharmacy were few and far between and the assistant aspiring to qualify had to carry on with his job and grind for his examination after hours. I happened to be situated in a sea-side town about twenty-five miles from the nearest city in which pharmaceutical tuition of any kind could be obtained. Our closing time was 8 p.m. Consequently two other assistants in the same town and myself caught the 8.15 train for the city, had our two hours' tuition, and then caught the midnight train home. This we did three times weekly for twelve months. All our chemistry and other practical work was carried out in the back-shop of one or other of our employers mostly on Sundays, and I am glad to say we all three went up and got through at the same time. How different from the fascinating training for the examination ordeal depicted in last week's C. & D. It is all to the good that modern conditions have abolished the slavery of those days and have widened the horizon of the present-day pharmacist, but one cannot help asking: *quo animo?*

Yours faithfully,

QUANTUM SUFFICIT (16/8).

Miscellaneous Inquiries

We do not undertake to analyse and report upon proprietary articles nor to publish supposed formulas for them.

T. T. (8/8).—JAVELLE WATER.—Mix 8 gm. of chlorinated lime with 40 c.c. of water. Dissolve 5.8 gm. of potassium carbonate in 30 c.c. of boiling water and add to the former mixture. Shake well, cool and add sufficient water to produce 100 c.c., and filter. Keep the solution in well-stoppered bottles and protect from light.

W. E. K. (8/70).—CONTINUATION OF BUSINESS IN CASE OF DEATH.—The business of a registered chemist and druggist who died in 1931 can be carried on by his representative for a period of five years from the date (May 1, 1936) on which Section 10 of the Pharmacy and Poisons Act, 1933, came into operation. This condition is set out in subsection (7) of the said Section 10. Your supposition that the executors of the business have power to continue the business "so long as they think fit" is therefore incorrect. However, the representatives have the right to apply to the Statutory Committee (subsection (4) of Section 10), who have the power to grant such longer period as they think fit "having regard to the circumstances of the case." The death of the widow prior to May 1, 1941, will not affect the business being carried on until that date, though presumably it would affect the circumstances of the case when applying for further extension. The conversion of the business into a private limited company prior to May 1, 1941, would obviate the necessity of applying for such extension. Details of the procedure to be adopted in forming such a limited company is given in *The Chemist and Druggist Diary*, 1937 (p. 309).

W. D. L. (10/8).—DESTRUCTION OF MOLES.—The following are recommended formulas for mole poisons. A bait is prepared from

(1) 190 gm. of earth worms and a mixture of equal parts of fine flour and red squill powder, weighing 42½ gm.

or (2) Meal 250 gm., shredded meat 210 gm., liquid red squill 212.5 gm.

These materials should be divided into baits of about 4½ to 5 gm. each. The liquid squill referred to is a liquid extract prepared by macerating red squill in a menstruum of glycerin 25 parts, acetic acid 2½ parts, distilled water to 100 parts.

H. & K. (15/8).—VANISHING CREAM.—It is impossible to make the cream according to your formula truly vanishing, as the proportion of oil is much too high. It is possible to make a stable oil-water emulsion by the following process. Melt the lanolin with the cotton-seed oil at as low a temperature as possible. Powder the benzoic acid finely and mix with the sodium stearate, and incorporate this with the oils. Finally, add the pasta acid. stearic., and stir until cold.

Retrospect of Fifty Years Ago

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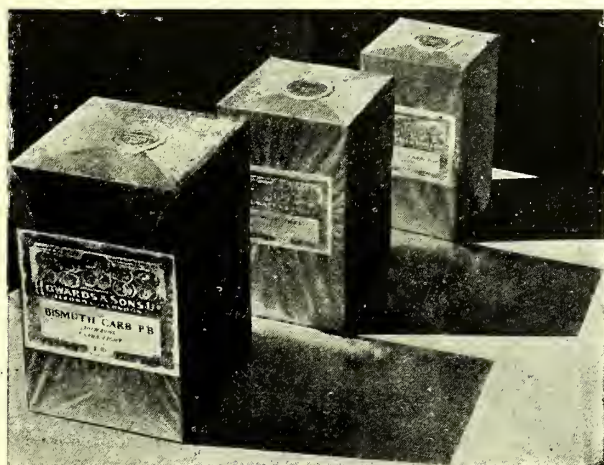
"The Chemist and Druggist," August 16, 1888

Statistics of the Medical Profession

A very interesting report, edited by Mr. W. J. C. Miller, the Registrar to the Medical Council, has been issued under the authority of the Statistical Committee of that body. . . . The tables showing the distribution of practitioners in the large towns and counties is of considerable interest, and we quote it entire as it is given for 1886:—

Large Towns		Average No. of persons to each Practitioner in 1886	Large Towns		Average No. of persons to each Practitioner in 1886
1. Brighton	...	726	15. Preston	...	2,213
2. London	...	939	16. Nottingham	...	2,232
3. Plymouth	...	1,130	17. Hull	...	2,232
4. Bristol	...	1,232	18. Birkenhead	...	2,245
5. Newcastle-on-Tyne	...	1,406	19. Halifax	...	2,250
6. Manchester	...	1,506	20. Leeds	...	2,250
7. Huddersfield	...	1,541	21. Sunderland	...	2,293
8. Liverpool	...	1,564	22. Derby	...	2,333
9. Portsmouth	...	1,740	23. Cardiff	...	2,333
10. Birmingham	...	1,779	24. Sheffield	...	2,593
11. Norwich	...	1,818	25. Bradford	...	2,593
12. Wolverhampton	...	2,062	26. Blackburn	...	3,129
13. Bolton	...	2,109	27. Oldham	...	3,147
14. Leicester	...	2,175	28. Salford	...	3,998

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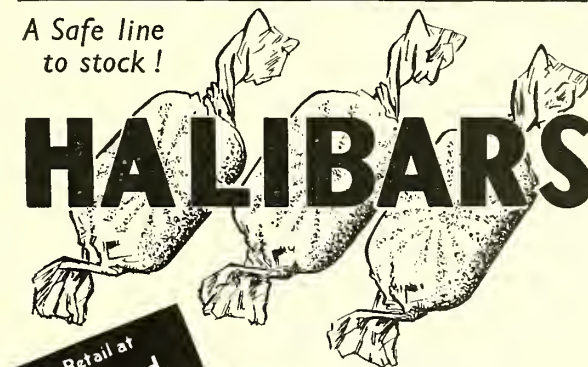
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*Postlip Filterings are stocked by all the leading Wholesale Laboratory Dealers.*

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**IN TABLET FORM**

60 Tabs. 1s. 6d.  
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Retailers' discount 33 1/3 %  
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Recommended for improving the condition of the blood, and for treatment of skin eruptions. Should retailers experience any difficulties in getting supplies through usual channels send a postcard to the manufacturers.



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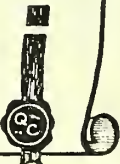
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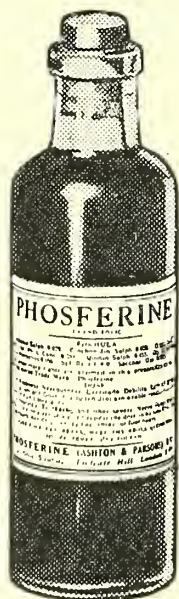
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In large hospitals and in private practice the use of 'Dettol' is ever increasing.

This approval by doctors is based on the high germicidal efficiency and great convenience of 'Dettol.' Its efficiency is maintained in the presence of blood and other organic matter. 'Dettol' can be used without discomfort, staining or danger at far greater strengths than carbolic or cresylic antiseptics.

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RECKITT AND SONS, (PHARMACEUTICAL DEPT.) HULL.  
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# 'Alka-Seltzer'

## What it is—and what it does

### WHAT IS 'ALKA-SELTZER'?

*Answer :—* It is an analgesic alkalizing tablet weighing 48·5 grains.

### WHAT DOES IT CONTAIN?

*Answer :—* Sodium Bicarbonate 26·5 grains, Citric Acid 17 grains, Acetylsalicylic Acid (Aspirin) 5 grains.

*Note.* When dissolved the Acetylsalicylic Acid becomes Sodium Acetylsalicylate or Sodium Salt of Aspirin.

### HOW IS IT TAKEN?

*Answer :—* It is dissolved in a glass of water and forms an effervescent, alkalizing solution.

### WHAT IS THE ADVANTAGE OF THIS FORM OF MEDICINE?

*Answer :—* It makes a pleasant-tasting, sparkling solution which is more readily assimilated by the digestive organs of the body.

### FOR WHAT AILMENTS OR CONDITIONS IS IT INDICATED?

*Answer :—* For all conditions or ailments in which an analgesic is indicated and also all conditions where an alkali is indicated. In other words, most common ailments are associated with an unbalanced acid-alkaline base, which causes Indigestion, Headaches, Colds and Everyday Aches and Pains.

To Repeat. An 'Alka-Seltzer' Tablet in a glass of water makes a sparkling, pleasant-tasting solution. It does two very important things. First it relieves the pain and discomfort in just a few minutes. Second, it helps to correct the cause of the trouble when associated with an excess acid condition.



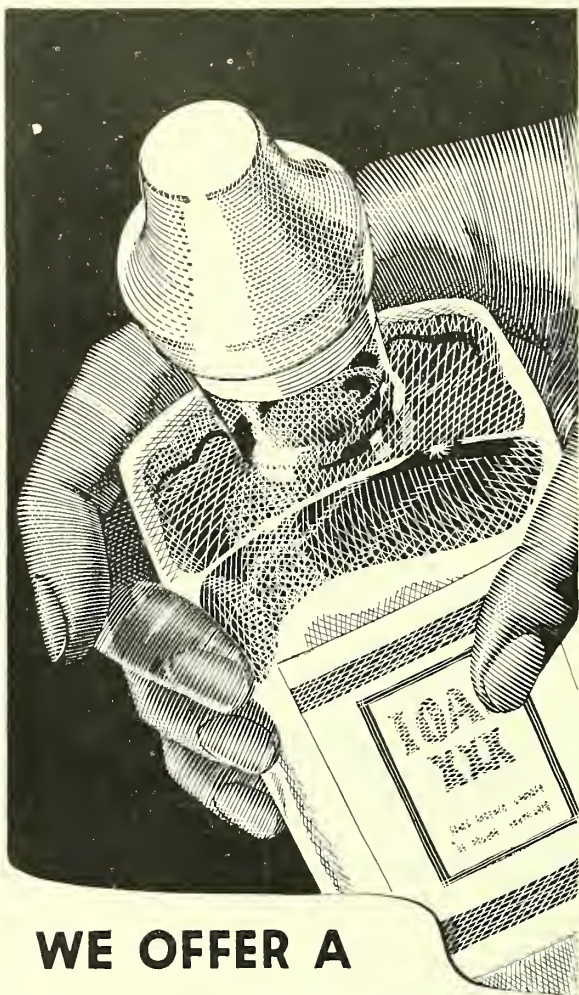
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12 TABLETS

30 TABLETS

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● May we give you the pleasure of testing it?  
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THE  
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An extra heavy and large bottle covered with peach colour 'Neva Wet' patent velour

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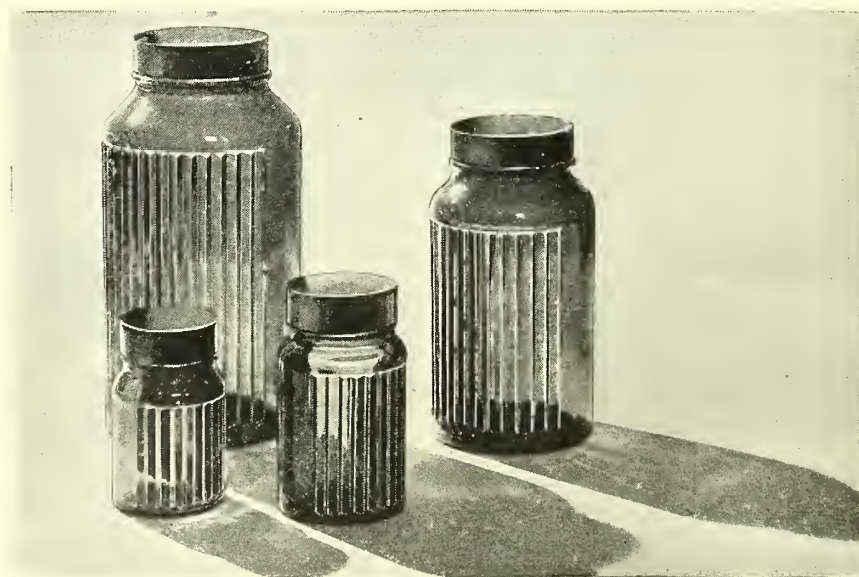
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MOULDED CAPS

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we will include**FREE OF CHARGE**One Ounce of our famous Synthetic  
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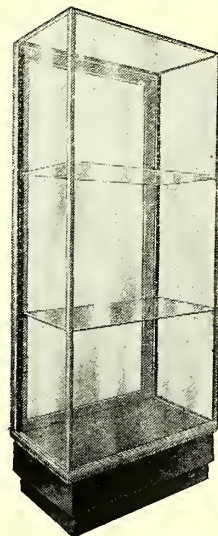
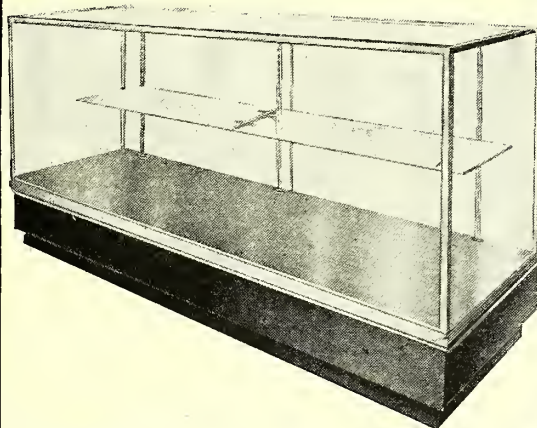
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OF "EMPIRE" SHOWCASES**These handsome tallboy showcases can be supplied with solid oak frames mounted on a polished black ebonised plinth or mahogany frame mounted on a mahogany finish plinth. Glazed with new first quality drawn plate glass front, top and sides, 1/4" thick, with a hinged glass door at back. Interior fitted with tapped bar and adjustable brackets and two plate glass shelves.  
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This magnificent range of Showcases can be supplied with solid oak frames mounted on a polished black ebonised plinth or with mahogany frame mounted on a mahogany finish plinth. Glazed with new first quality drawn plate glass front, top and sides, with two frameless sliding doors at back, 1/4" thick polished edges. Interior fitted with standard bar and adjustable brackets and one row of plate glass shelves 12" wide.

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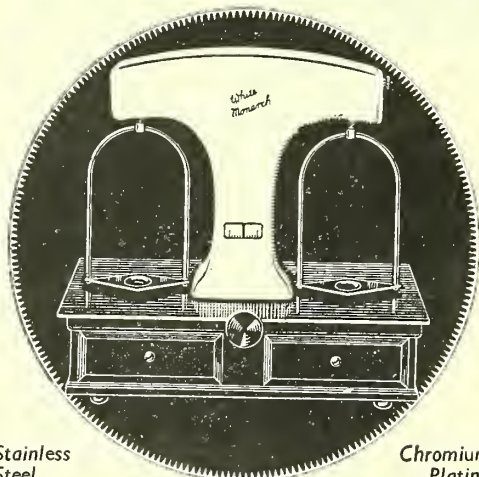
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THE  
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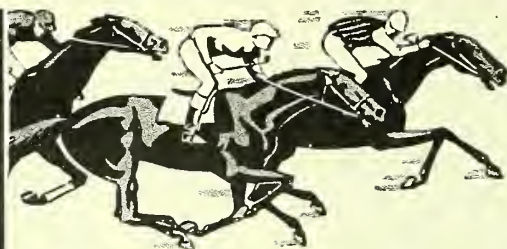
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SHOW YOU ONE

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## If you *must* gamble

do it in the right place, not in your business. There, your money should not be in a gamble: you should be SURE of it.

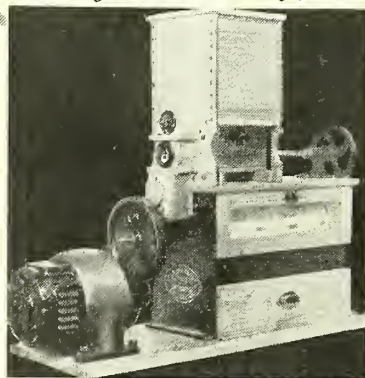
At the moment, do you know how much you lose through mistakes in adding prices or through forgotten credit sales? Do you know NOW if the amount of money in your cash drawer is all that should be there?

Consider these points and ask yourself if the amount of your profit is not a sheer gamble: one in which you may lose, occasionally break even—but never win!

Our free booklet "System for Chemists" indicates how the profit gamble can be cut out. It awaits your request. Why not have a copy?

**The National Cash Register Co. Ltd.**  
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One Gardner machine has been at work so long, that, so our customer says, "it really should be awarded a place in a museum." He adds "... it still stands up to its work."

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*Patent Quick Change*  
**FINE POWDER DRESSER**

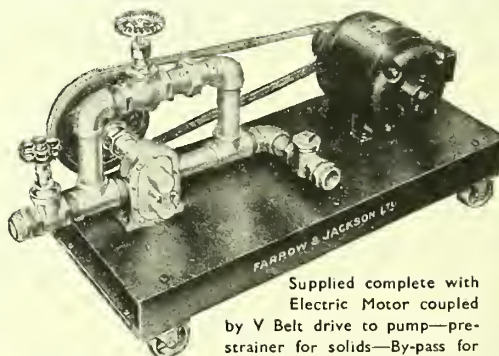
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# BONUS OFFER ON SMALL QUANTITIES!

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## HOW TO GET YOUR BONUS BOTTLES

Just send your order to your usual wholesaler before October 1st, mention this bonus offer, and promise to display 'SevenSeaS' on your counter or in your window for at least two weeks. When your goods arrive, you will find your free bonus bottles in the parcel. But don't wait till it's too late. Send you order *now*, before the offer closes.



### 'SEVENSEAS' HIGH POTENCY

Pure cod liver oil, not artificially concentrated, but with a greater natural vitamin content (four times the standard laid down by the British Pharmacopoeia).

*Selling price: 1/3 per bottle.*



### 'SEVENSEAS' CAPSULES

Each capsule contains five drops of High Potency Oil; the full dose for adults. The capsules are absolutely tasteless.

*Selling price: Bottle of 25 1/6      Bottle of 100 5/-*  
" " 50 2/9



### 'SEVENSEAS' STANDARD

Complying with the requirements of the British Pharmacopoeia.

4 oz. Bottle — *Selling price 10d.*

8 oz. Bottle — *Selling price 1/3.*

# SEVENSEAS

## COD LIVER OIL

ORDER FROM YOUR USUAL WHOLESALER



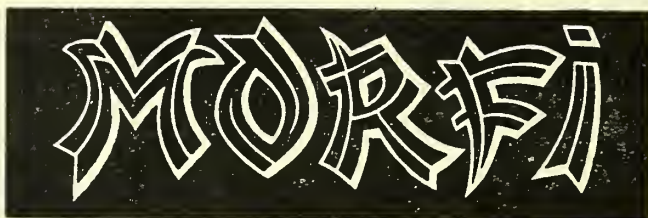
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Oct. 1st*

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every Mother  
in the  
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## The reason why



## Products do not necessitate dating

*Dated products of this nature must sell immediately, otherwise the confidence of your customer is impaired by the very fact of dating it.*

*'MORFI' safeguards against this eventuality in two ways:—*

- 1. Their popularity ensures a quick turnover.*
- 2. Owing to the process of manufacture they will retain the original freshness in any climate for at least three years.*

|                        | Per Gross | Pkt. of 3 |
|------------------------|-----------|-----------|
| MORFI<br>(Transparent) | 30/-      | 2/6       |
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| TROPEX                 | 21/-      | 1/6       |
| FROMMS ACT             | 39/-      | 3/-       |

*Obviously, these high qualities are in themselves the surest safeguard for Chemist and Customer alike. Stock and sell 'MORFI' and gain a reputation for selling reliability—plus a high profit for yourself.*

SOLE DISTRIBUTION

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'Phone Gerrard 6258-9

# The CHEMIST AND DRUGGIST SUPPLEMENT

This Supplement is inserted in every copy of The Chemist & Druggist

AUGUST 20, 1938

28 ESSEX STREET, LONDON, W.C.2

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All advertisements in this Supplement must be prepaid

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THE CHEMIST & DRUGGIST, 28 Essex St., Strand, London, W.C.2 Tele: Central 6565 (10 lines) 'Grams: "Chemicus," Estrand, London

## ORRIDGE & CO.

56 LUDGATE HILL, E.C.4

ESTABLISHED 1846

Telephone Nos.: CITY 2283 & 7477

May be CONSULTED at their Offices on MATTERS of SALE, PURCHASE & VALUATION

We make no charge to purchasers, and invite intending buyers to communicate with us, stating their requirements

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2.—**PLYMOUTH.**—Old-established Good-class Family Retail Business; returns exceed £1,300; good profits; large shop; well stocked; new lease will be granted; price £650.

3.—**SURREY.**—General Retail Business taking about £3,000 per annum; valuable lease; excellent fixtures; heavy stock; increasing turnover; genuine reason for sale; inclusive purchase price about £1,800 or near.

4.—**BERKS.**—Country Retail Business; nearest opposition 8 miles; net profit about £7 per week; excellent living accommodation; beautiful garden, lawn, fruit trees; rent £55 per annum; new lease; accountant's figures available; price required £650; **part payment terms entertained.**

5.—**AYLESBURY.**—General Retail Business with Kodak agency; returns about £800, have been £1,200; double-fronted shop; stock and fittings estimated to be worth £350; small house and garden; 13 years' lease, option to purchase property; about £400 will be accepted.

6.—**LIVERPOOL.**—Mixed Business with good Panel; established many years; returns exceed £1,500 under management; single-fronted lock-up shop; rent £50; held on lease; price £750.

7.—**HANTS (COUNTRY TOWN) (RETIREMENT VACANCY).**—Vendor over 70 years of age; General Retail Business; takings last year £900; attractive house; full particulars upon application; low purchase price; property can be purchased.

8.—**READING.**—Owing to the decease of Mr. Herbert Dyson, his Good-class General Retail Business is for immediate disposal; turnover about £2,700 per annum; full particulars upon application; new lease; sole agents; early sale desired.

9.—**NORWICH.**—General Retail Business occupying important position in City; turnover last year £707; net profit £270; stock £178; rent only £50 per annum; inclusive purchase price required £250.

10.—**FULHAM.**—General Cash Retail Business; in present hands 10 years; takings approximately £1,000 per annum; net profit £288; sublets practically cover rental; inclusive purchase price asked £600.

11.—**SOUTH WALES (HEALTH RESORT).**—Good Middle-class Cash Business; takings over £1,250 per annum, increasing; excellent living accommodation; price to include property £1,450, or lease can be had at £65 per annum; retirement vacancy.

12.—**BOURNEMOUTH (RETIREMENT VACANCY).**—Good-class Business offering considerable scope; in present hands 14 years;

turnover about £800 per annum; spacious living accommodation; purchase price asked about £375; new lease at £80 p.a.; visited.

13.—**BRIGHTON.**—Cash Drug Store; scope for qualified; net profit nearly £3 per week; rent only £30 per annum; inclusive purchase price asked £200, which sum includes stock £160.

14.—**FINCHLEY (NEAR).**—Family Retail Business; takings for last completed financial year £2,300; chartered accountant's figures; splendid living accommodation; National Cash Register; inclusive purchase price £1,450; new lease.

15.—**BAKER STREET (NEAR).**—Good-class Dispensing Business; turnover exceeded £2,000 for last completed financial year; old-established concern; rent £100 per annum; inclusive purchase price £1,150; vendor buying another business.

16.—**BIRMINGHAM.**—Family Retail Business; established 12 years; takings last year £1,165; net profit £315; nice house; low rental; inclusive purchase price £650.

17.—**LEYTON.**—Cash Drug Store; turnover averages £12—£15 per week; good profits; no near opposition; stock worth £200; rent 25s. weekly inclusive; sublet 7s. 6d.; lease would be granted; price £375.

18.—**NORWOOD.**—Old-established Cash Retail Business; takings last year £1,260; net profit £350; good living accommodation; excellent stock and fixtures; inclusive purchase price required £775; management with view to succession considered £50 down.

19.—**HARROW (NEAR).**—Family Retail Business with Photographic and small Panel connection; turnover last year £1,360; gross profit 33.7 per cent.; stock worth approximately £400; very nicely fitted Pharmacy with modern living accommodation over; inclusive purchase price £800.

20.—**BRISTOL.**—General Retail Business occupying important site; cash takings, present rate £32, plus N.H.I.; scope; exceptionally valuable lease; stock and fixtures worth about £800; inclusive purchase price required £1,200 approximately, or valuation terms entertained.

21.—**BARNESLEY (NEAR).**—General Cash Retail Business with excellent Panel for disposal owing to vendor purchasing a business on the South Coast; takings £1,562; net profit £411; stock £400; nice living accommodation; price required for the lease and goodwill £200; fixtures £200.

22.—**YORKS.**—Exceptional opportunity for young man; Middle-class Business; well established; takings last year £1,863; stock and fixtures worth £450; rent £30 per annum; inclusive purchase price asked £500 or valuation terms entertained.

23.—**NEWCASTLE-ON-TYNE.**—Branch Business; takings nearly £1,200; stock £250; inclusive purchase price £500.

## Chemists' Transfers, Valuations for Sale, Stocktaking & Probate, Sales by Auction

Special Terms for Income Tax Valuations and Preparation of Accounts by Qualified Accountants

# ERNEST J. GEORGE & Co.

Bank Chambers, 329 High Holborn, London,  
Telephone Nos. : Holborn 7406 & 7407 (2 lines) W.C.1  
County Bldgs., Bridge St., Walsall Telephone :  
Walsall 3774

Lancashire and District Representative : Mr. E. BROWN, 21 Davenport Road, Hazel Grove, Stockport. Telephone : Great Moor 2405

(C1) SURREY.—Good profit-earning business with valuable side-line; increasing turnover, now at the rate of about £2,500 per annum; net profit approximately £650; no near opposition; up-to-date flat; 21-year lease; price £1,700, or near offer.

(C2) DORSET.—Old-established, good-class business with living accommodation; turnover for 1935-36, £3,914; 1936-37, £4,194; company opposition pending and owner will accept £250 for goodwill; Arden etc., agencies; scope for increase in several directions.

(C3) UXBRIDGE (NEAR).—Old-established family business situated in growing and improving district; turnover for 1937/38 financial year, £2,130; gross profit £804; rent £65; lease nearly 21 years to run; to an Owner-Proprietor the business would at present show a net profit of £500-£550 per annum; price approximately £1,500 all-at.

(C4) LANCs. (BETWEEN BLACKBURN AND BURNLEY).—Lock-up Pharmacy with modern front, situated in prominent position; turnover should reach £2,500 per annum in reasonably near future; now averaging about £1,650, consequent upon rebuilding scheme, which, when completed, should benefit the business considerably; reasonable overheads; value of stock and fixtures (£870/£970) accepted, without any payment for goodwill.

(C5) EAST FINCHLEY (NEAR).—Established main road business with living accommodation, at present sub-let; turnover for year ended December, 1937, £2,572; gross profit £962; stock estimated at £1,000, all of which is good; fixtures about £280; price all-at, for quick sale £1,530, or near offer, including only £250 for goodwill.

(C6) FOREST HILL, (DEATH VACANCY).—Immediate sale desired in order to close estate and any offer considered; in late hands approximately 26 years; turnover for 1936/37 £1,302 including N.H.I. £348; excellent scope; leasehold; property can be purchased or 21-year lease may be granted at reasonable rental; no goodwill asked; immediate application advised.

(C7) WOLVERHAMPTON.—Suburban business with living accommodation, situated in rapidly developing area; present returns approximately £22 weekly; lease will be granted at rent of £80 per annum, or property can be purchased for £1,000; no near opposition; reasonable purchase price (by negotiation).

(C8) GRAVESEND.—Modern Pharmacy occupying main-road position; good living accommodation; rapidly increasing turnover, which for 1937-38 amounted to £1,750; net profit £450-£500; excellent scope; no near opposition; stock and fixtures estimated at £900; price all-at £1,000; property also could be purchased if desired, or lease will be granted at a rental of £91 per annum, plus rates about £17.

(C9) MERSEYSIDE (RETIREMENT VACANCY).—General cash business with good N.H.I.; turnover for 1937, £1,333; net profit £385; property can be purchased or lease will be granted at a rental of £70 per annum; in present hands during past 26 years; price all-at £800.

(C10) FLEET STREET (NEAR).—City Business with steadily increasing turnover, now at the rate of £40-£45 per week; no week-end duty; good scope; price £600 all-at, or reasonable offer; genuine reason for selling, which we can substantiate.

(C11) DERBYSHIRE.—Drug Store with increasing turnover; now averaging at the rate of approximately £1,400 p.a.; capable of substantial increase under qualified proprietorship; purchase price £500, representing value of stock and fixtures only.

(C12) WEST END.—Good-class business taking between £40-£45 per week; considerable scope for increase; situated in best part of West End; approximate value of stock £600; fixtures £300; price asked £1,000; audited accounts available.

(C13) DONCASTER.—Flourishing Branch Business with turnover £1,500; large population to draw upon; capable of substantial increase under working proprietor; low rental; price £950, including £500 for stock and £250 for fixtures.

(C14) THORNTON HEATH.—Attractive modern Pharmacy with congenial up-to-date flat (optional); present returns approximately £20 weekly; reasonable overheads; no near opposition; price £450 all-at.

(C15) LEEDS.—Double-fronted corner shop with good private and N.H.I. dispensing; turnover £1,400; audited accounts; living accommodation; small optical connection, with good scope for increase; purchase price £800, or near offer.

(C16) MIDDLESEX.—Business established three years; returns now £1,712, and increasing at the rate of £15 per month; situated in rapidly growing district; modern premises with good living accommodation; for a quick sale £1,000 all-at will be accepted.

(C17) EPSOM (NEAR).—Excellent opportunity for Pharmacist to purchase attractively fitted branch Business with up-to-date flat above; turnover for last year approximately £2,000; rent £150; price £100 for goodwill, plus stock and fixtures at valuation.

(C18) CHESHIRE TOWN.—Old-established Business, easily conducted; turnover for 1937/38, £1,630; net profit £350; good opportunity for enterprising chemist; price, value of stock and fixtures only, approximately £750.

(C19) EARL'S COURT (NEAR).—Old-established Pharmacy occupying prominent corner position; turnover approximately £2,300 per annum; rent £175; sublet £240; lease 13 years unexpired; price all-at £1,750 or near offer.

**Valuations for transfer, probate, income tax, etc., promptly executed at economical rates**

## THE ASSOCIATION OF MANUFACTURING CHEMISTS, LIMITED

(Business Agency, Transfer & Valuation Department)

KIMBERLEY HOUSE, and at EXCHANGE CHAMBERS,  
Holborn Viaduct, LONDON, E.C.1 2 Bixteth St., LIVERPOOL.

PARKIN S. BOOTH, Valuer. Tels.: CITY 3691 (4 lines).

**VALUATIONS. SALES OF BUSINESSES. STOCKTAKINGS.**  
*Enquiries Invited.*

## BUSINESSES FOR DISPOSAL

**BRISTOL DRUG STORES.** Well-fitted; lock-up shop, in main thoroughfare; cash trade; takings, £1,200-£1,500 per annum; could be substantially increased by Qualified Chemist; rent, £130 per annum; agreement 2½ years to run; offers for goodwill, fixtures and fittings, stock at valuation, about £500; immediate possession. Further particulars may be obtained from Edward Thomas Collins & Son, Chartered Accountants, 28 Baldwin Street, Bristol.

**CARLISLE.**—Business situate main street, for immediate disposal; present takings capable of increase; stock approximately cost £180, condition good. For further particulars apply Parkin S. Booth, The Association of Manufacturing Chemists, Ltd., 2 Bixteth Street, Liverpool 3.

**MANCHESTER (Suburb).**—Exceptional opportunity for Chemist with limited capital, to acquire main road business; returns under management £1,750; under personal proprietorship the business can be steadily increased. Further particulars on application, 12/47, Office of this Paper.

**SOUTH COAST.**—Main-road Business, with living accommodation; takings last year £1,867, steadily increasing; good position, bus stop; N.H.I. 300 a month, increasing; net profit £458; Kodak Agency; price £1,000. 12/12, Office of this Paper.

**SUSSEX.**—Good-class business for sale owing to retirement; turnover approximately £4,000 per annum; premises prominently situated; in present hands over 30 years; reasonable purchase price, consistent with value; net annual earning capacity should exceed £800; particulars to genuine prospective purchasers only upon receipt of bankers' references. 332/172, Office of this Paper.

**WEST RIDING.**—Business for sale, busy main road position, small industrial town, near doctors. N.H.I. averages £20 per month, and increasing. Full Wine Licence. Rent and Rates £1 a week inclusive. Turnover £860; net profit £250. Safe living and good proposition for young Qualified. Price £475, which is value of stock and fixtures only, or valuation terms. 8/2, Office of this Paper.

**DRUGGIST.** Nearest seaside to London; Southend district; Deliveries daily; Demands Qualified Chemist. Winter population 12,000, growing fast owing to extensive development; Summer, 150,000. Excellent photographic stock and large plate showcases at valuation. Good profit. Established 18 years. No price asked. Owner of property requires good tenant. Rental, £35 per annum. 10/8, Office of this Paper.

**ILL HEALTH** necessitates quick sale of nice middle-class business in growing district of London suburb; modern double-fronted shop, good position, nicely fitted; usual agencies; N.H.I. 200; good private Dispensing; room for Optics; fixtures £375; stock £350 approximately; turnover £1,350; gross profit 35.7 per cent.; 15 years' lease; nice flat above with side entrance and garden. **WHAT OFFERS FOR QUICK SALE**—which is essential? Further particulars from 11/3, Office of this Paper.

## BUSINESSES WANTED

**PROPRIETARY ARTICLE.**—Advertiser is open to purchase immediately for cash, good Proprietary Article (Medical or Toilet), or might take substantial interest; present sales must show a definite profit, even if not large, providing the business is capable of development; existing staff could remain. All replies will be treated in strict confidence. 332/159, Office of this Paper.

**REQUIRED** by Private Limited Company, three or four businesses, preferably of a good-class nature, situated in North, North West, or West London; minimum net profit (to owner-proprietor) £500 per annum, higher if possible; capital available for immediate negotiation; prospective Vendors are invited to communicate initially with Ernest J. George & Co., 329 High Holborn, London, W.C.1. All inquiries will be treated as strictly confidential.

**SEVERAL** good businesses in London and surrounding area required immediately; minimum turnover £2,000 per annum, and preferably with scope for increase; all replies treated in confidence. 332/158, Office of this Paper.

## PREMISES FOR SALE

**A**T BEDFORD; main road position against 2 large housing estates; large, clean works, and the beautiful village of Elstow; superior shop and house now nearing completion; 4 large living rooms, half-tiled bath and scullery, hot water, garage, etc. Price £975 or on deposit terms; a really exceptional opening; details and copy plan. Harrison & Co., 74 Alma Street, Luton.

## PREMISES TO LET

**F**ELTHAM (Sunbury District).—Splendid new Shop and Premises; outstanding position in rapidly-growing area, with a definite opening for Chemist and Druggist; to let at £120 per annum. Enquiries to Bridge Estates, New Zealand Avenue, Walton-on-Thames. Phone: 1421.

**S**URBITON.—Only one Shop left in fine parade of shops; really good opening for Chemist; to let or for sale, at moderate figures. Owner, 293 Hook Rise, Surbiton. Elmbridge 1659.

**C**HEMIST urgently required; excellent position; junction of two main roads; excellent shop, with excellent living accommodation; to be let or sold. Apply, Silver & Graham, Ltd., 11 Crescent Parade, Hillingdon. Telephone: Uxbridge 1877.

**C**HEMIST urgently wanted. Magnificent parade of modern shops and upper parts in S.E. London; front, etc., ready for use; 8,000 houses serviced by this parade; further development rapidly taking place. Many active traders already well-established; special terms to assist immediate opening. Write Owner, 10/3, Office of this Paper.

**W**ONDERFUL OPPORTUNITY for progressive man with limited capital to start his own business. PHILIP JOSEPHS & SONS, LTD., have an option on thirty sites in blocks of buildings with most of the other shops taken by large Multiple Stores and having splendid prospects for the opening of a new Pharmacy. These can be rented COMPLETE WITH SHOPFRONT, INTERIOR FITTINGS, ROUNDS, SCALES, etc., to Tenant's own design and to value of FOUR HUNDRED POUNDS, together with flat over, at a figure of £250 per annum. There is no premium required, and no capital repayments. Only the Stock is needed. Write or call PHILIP JOSEPHS & SONS, LTD., 90/92, St. John Street, Clerkenwell, LONDON, E.C.1. Telephone: Clerkenwell 4111/2. Pharmacy Fitters for over a century.

## APARTMENTS

### THE HAMPDEN RESIDENTIAL CLUB

**F**OR GENTLEMEN, Hampden Street, N.W.1. Close to King's Cross and Euston. 300 Bedrooms, 15s. to 22s. 6d. per week, including bath, attendance and boot cleaning. All meals à la carte in dining room. Moderate tariff. Large Club Rooms, Library, Billiards Room, Reading Room and Study for Students. Illustrated Prospectus from Secretary, Euston 2244/5.

## AGENCIES

6s. for 36 words or less; 1d. for every additional word, prepaid. (Box No., 1s. extra.)

**A** PROGRESSIVE and well-organised established firm of Agents, having over 15 years' connexion with the Drug Trade, employing two Travellers, regularly calling on Wholesale and Retail Chemists in Northern Ireland, are open to consider two additional lines. If desired, consignment stocks carried for prompt delivery. 332/141, Office of this Paper.

**E**XCLUSIVE Representatives for all countries required to introduce new discovery for arresting spread of all contagious diseases, however dangerous to human beings and animals. In latter cases cures are guaranteed in FOOT and MOUTH disease. Only well-organised firms should apply. Write A.B.C., 10/6, Office of this Paper.

**R**ESPONSIBLE Firm established in Brussels; Director now in England open for Continental agencies of first-class Pharmaceutical manufacturers. Communicate before September 10 with Delbaere, Eastwold House, Newlands Road, Rottingdean, Sussex.

**S**UB-AGENTS wanted in all parts of the country for the sale of German Vacuum Flasks in original cases to Retail Chemists and Drug Stores; commission only. Apply with references, stating ground covered, 332/153, Office of this Paper.

## SALES BY AUCTION

Removed from Mare Street for Sale Convenience.  
2-5 LITTLE BRITAIN (close to G.P.O.), LONDON, E.C. Modern EQUIPMENT of TWO CHEMISTS' SHOPS in Oak and Mahogany; Drug Runs, Wall and Counter Showcases, Mirrors, National Cash Registers, Silent Salesmen, Office Furniture.

### B. NORMAN & SON

will sell by Auction as above on Wednesday next, August 24, at 12 noon. View day prior. Catalogues on application. Tel.: NAT. 6463.

## EDUCATIONAL

**C**ORRESPONDENCE and Personal Tuition in Optics and Sight Testing.

C. V. BOLTON, F.S.M.C., 49A LEIGH ROAD, LEIGH, LANCs. TEL.: 527.

## BUSINESS OPPORTUNITIES

**A** WELL-KNOWN Company owning Shops throughout the country is prepared to assist in financing really enthusiastic and Qualified Chemists who wish to establish their own businesses. Write full details to Box 8170, Frost-Smith Advertising, 64 Finsbury Pavement, E.C.2.

## DIRECTORSHIPS

**I**F YOU CALL on Doctors and can sell Galenicals and Electric Preparations you are invited to apply for particulars of an exceptional opportunity to join the directorate of a progressive firm; no capital required, only proved ability to sell. 12/42, Office of this Paper.

## APPRENTICESHIP

### COUNTY BOROUGH OF HALIFAX HEALTH DEPARTMENT

STUDENT APPRENTICE in the DISPENSARY AT THE HALIFAX GENERAL HOSPITAL

**A**PPPLICATIONS are invited from GIRLS, not under 16 years of age, for the above appointment; applicants should have the Preliminary Scientific Examination Certificate of the Pharmaceutical Society.

A premium of £25 will be required to be paid to the Council.

The Apprentice will be bound to the Council for a term of three years at the following remuneration:—

|          |     |     |                |
|----------|-----|-----|----------------|
| 1st year | ... | ... | 10/- per week. |
| 2nd year | ... | ... | 15/- per week. |
| 3rd year | ... | ... | 20/- per week. |

Copies of Application Forms, together with further particulars of the appointment, may be obtained from the undersigned, and must be returned not later than first post on 27th August, 1938.

(Signed) G. C. F. ROSE,  
Medical Officer of Health.

Health Offices,  
Powell Street,  
Halifax.

## REPLIES FROM ADVERTISERS

**S**INGAPORE.—Junior Assistant for Medical Hall, Ltd. This post is now filled; other applicants are thanked; photographs and original certificates being returned. John Duthie, 37 Castle Street, Fraserburgh.

## SITUATIONS OPEN

## RETAIL (HOME)

6s. for 40 words or less; 1d. for every additional word, prepaid. (Box No., 1s. extra.)

**BEDFORD.**—Junior Male or Female by end of September. Full particulars of experience, age, etc., to Strachan, 108 Bromham Road, Bedford.

**CHILMSFORD.**—Unqualified Lady Assistant required for good-class business; knowledge of Dispensing, Toilet and General Counter work necessary. Apply, giving full details of experience and salary required, to Macarthy's, Ltd., Market Place, Romford.

**DEVON.**—Wanted, Assistant, Unqualified (25 to 35), with good experience for Dispensing and Counter work. Please give full particulars re salary, etc., 12/52, Office of this Paper.

**ESSEX.**—Qualified Junior Assistant wanted at once; permanency. 6/5, Office of this Paper.

**EXETER.**—Improver as Junior for high-class Dispensing business required middle September; excellent opportunity to gain experience; must be willing and reliable, good appearance. Full particulars and references (photo if possible) in first letter, Broom, Reid & Harris, Queen Street, Exeter.

**LONDON CO-OPERATIVE SOCIETY** require immediately experienced Female Toilet Assistants for service in various Departmental Stores and Chemist Shops. Applications, giving full particulars of experience, age, etc., to be made in writing to the Staff Manager, 54 Maryland Street, Stratford, E.15. Envelope to be endorsed in top left-hand corner "Toilet Assistants."

**LONDON.**—Permanent appointment offered Junior Qualified Chemist; excellent prospects of advancement. Write, 332/165, Office of this Paper.

**LONDON.**—Qualified Manager required for medium-class business; permanency to suitable man. Write, 332/167, Office of this Paper.

**LONDON, N.W.1.** Junior Unqualified Assistant required (age about 22), excellent opportunity for gaining high-class retail experience, with good prospects. Write full particulars, age, height, experience and salary expected. 332/169, Office of this Paper.

**LONDON, N.W.6.**—M.P.S. (under 30) required; permanency, with prospects of Management later; must be smart at Counter, Window-dressing, Photography and methodical; no Sunday duty. Send full particulars and salary required to 12/48, Office of this Paper. Applications not answered within 7 days respectfully declined.

**MANCHESTER.**—Qualified Man required to manage small branch; must be reliable Dispenser and Salesman. Apply, giving usual particulars of salary required, experience, etc., 11/15, Office of this Paper.

**NORTH LONDON.**—Young Qualified Assistant, lady or gentleman, required early September; permanency. Kindly reply, giving full particulars of experience, salary, etc., photo if possible, 12/27, Office of this Paper.

**SOUTH KENSINGTON.**—Qualified Assistant required early in September, in good-class Dispensing business; please give details as to age, height, experience and salary required. 12/6, Office of this Paper.

**SOUTHWOLD.**—Suffolk (small, quiet seaside town). Junior or Improver, Male (18-25), of good appearance and address; salary £2 10s. per week. State age, height, and enclose photo if convenient. A. E. Sawyer, M.P.S., 100 High Street, Southwold.

**STREATHAM.**—Unqualified Assistant required for September 12 (age about 25), accustomed to good-class Dispensing and Retail; applicants please give full particulars as to apprenticeship and experience and state salary required. 12/11, Office of this Paper.

**SURBITON.**—Qualified Manager required; opportunity for smart Young Man to commence in Management. Write, 332/166, office of this Paper.

**SURREY.**—Newly Qualified; Lady; permanent. Write age, salary and usual particulars, Box 591, Reynells', 44 Chancery Lane, W.C.2.

**SURREY.**—Qualified Lady required immediately; must be good Saleswoman and Dispenser; small N.H.I., Family Business; permanency for suitable applicant. All particulars and wages in first letter, "Jones," 67 Sherwood Park Road, Mitcham.

**COMPETENT** Lady Assistant required, Brighton; one thoroughly experienced in all branches and requiring a permanency; please give full particulars and copies of references in first letter. 12/25, Office of this Paper.

**EITHER** Sex (Qualified), for high-class Dispensing and Toilet; permanency; Earls Court. Apply in writing, stating age, salary required, etc. 11/19, Office of this Paper.

**EVENING** Assistant wanted immediately 3 or 4 evenings a week; largely Dispensing and Stock Mixtures. State terms and experience, Hanham, 29 Grove Vale, East Dulwich, S.E.22. Phone: New Cross 3516.

**JUNIOR** Unqualified Assistant (Male) required September 12. Please state full particulars of experience, age, salary required, etc. (enclose photo if possible), J. H. Meynell, 24 High Street, Bexley, Kent.

**LADY** (Qualified), manage branch shop, pleasant district, 25 minutes from London; good salary and commission. Patterson, Chemist, Claygate, Surrey.

**QUALIFIED** Assistant required immediately; family business and N.H.I.; Unqualified Assistant kept; and to take charge from time to time at branch. Please give particulars, age, salary, references, to R. Westland, 75 Herne Hill, London, S.E.24.

**QUALIFIED** Gentleman or Lady for medium-class business; small N.H.I.; permanency; experienced Dispenser, Salesman and Window-dresser. Write, stating age, experience and wage required. Send references and when at liberty; comfortable position; no Sunday or Thursday duty; old-established business. F. F. Blunt & Co., Ltd., Northampton.

**QUALIFIED** Lady Assistant; Counter and Display experience essential. Apply by letter, stating age, date of qualification, experience, with testimonials, to Secretary, Beswick Co-operative Society, Ltd., Grey Mare Lane, Manchester, 11.

**QUALIFIED** Junior Assistant (Male) required for high-class business in Sussex (age about 23); excellent prospects. Full particulars in first letter, age, height, experience, salary expected and when disengaged. 332/170, Office of this Paper.

**QUALIFIED** Manager required end of September for Devon village Pharmacy (including Tobacco and Newspapers); house and garden provided. Manley, Loudon House, Honiton, Devon.

**RANDALL & WILSON, LTD.**, Dispensing Chemists, Southampton, require a Qualified Assistant (Male). Applicants must state full particulars, salary required and supply references.

**SURGICAL.**—Wanted, smart young man (age 18 to 21), with some shop experience; must be of good appearance and willing to learn; knowledge truss and belt fitting an advantage. Messrs. Lindsey & Sons, Surgical Instrument Makers, 19 Queen Street, Exeter.

## PHOTOGRAPHS, TESTIMONIALS, &amp;c.

When replying to advertisements in this section applicants are strongly advised not to send (unless specially requested) ORIGINAL TESTIMONIALS or VALUABLE PHOTOGRAPHS. Many of these announcements produce an exceptionally large response and, as can be readily understood, the task of returning photographs, testimonials, &c., is one of some difficulty.

**THE BURSLEM HAYWOOD AND TUNSTALL WAR MEMORIAL HOSPITAL.**—Applications are invited from registered Pharmacists for the position of Dispenser, part of whose duties would be of a clerical character. The successful candidate would be required to live out. Federated Superannuation Scheme in force. Applications stating salary required, particulars of experience and accompanied by copies of three recent testimonials to be addressed to the Secretary immediately.

**UNQUALIFIED Assistant** required (aged about 20); opportunity for Dispensing experience. State age, height, references and salary required to H. Hocken, Ltd., Lesbourne Road, Reigate.

**UNQUALIFIED Junior Assistant**, gentlemanly and well educated, required, September 19, for first-class Dispensing business; just completed apprenticeship and passed Part I preferred. Apply with photo, references, etc., Hall & King, Ltd., West Cliff Pharmacy, Folkestone.

**UNQUALIFIED Junior Assistant (Male)** required at once; good Counterman and accurate Dispenser; no Sunday or half-holiday duties; permanency for suitable man. References and salary required to Managing Director, Lovett & Bones, Ltd., Hertford Street, Coventry.

**UNQUALIFIED Junior Assistant** required for branch at Kettering; must have had good training and used to high-class business. Apply, stating age, salary required, references, and enclose photograph, P. Jeyes & Co., Ltd., The Drapery, Northampton.

**UNQUALIFIED Junior Assistant** required (Lady or Gentleman), accustomed to quick Counter and N.H.I. Dispensing; early September. Please give all particulars of experience, age, education, salary, etc., to Wood, Pharmaceutical Chemist, 351 High Street, West Bromwich.

**UNQUALIFIED Junior Lady Assistant**, with good training, required for good-class business in Norwood, S.E. Full particulars, 12/43, Office of this Paper.

**UNQUALIFIED Junior** required the middle of September. Apply with usual particulars, to E. W. Tayler, Pharmaceutical Chemist, Sherborne, Dorset.

**WANTED** by Doctor, Qualified Dispenser, lady, outdoor, Sussex; salary £2 10s. per week. State age and give reference to 12/13, Office of this Paper.

**WANTED.**—Dispenser (male or female) for Doctor's Country Practice in the Midlands. Write, stating age, experience, and wage required. 10/2, Office of this Paper.

### VACANCIES FOR LOCUMS

**LOCUM**, Qualified, lady or gentleman, wanted for August 22 to September 3, or alternatively August 29 to September 10, in small town in West Wales; hours short and work light; apprentice kept. Send full particulars and salary required (outdoors) to 10/7, Office of this Paper.

**LOCUM (Unqualified)**, required August 29 to September 3. Buckingham, 132 Belle Grove Road, Welling, Kent; or Phone: Bexley Heath 218.

**QUALIFIED Relief** required from September 5 to 22. Apply to Watson & Co., 100 Mitcham Road, Tooting, S.W.17.

### WHOLESALE

**LONDON.**—Well-known Pharmaceutical House requires a Pharmacist with considerable practical experience to assist in the development of new products. The post is progressive with excellent prospects and participation in Superannuation Scheme. Applications stating age, education, Pharmaceutical qualifications, initial salary desired and giving fullest particulars of practical experience will be treated as strictly confidential, and should be addressed to Managing Director, 332/171, Office of this Paper.

**MANUFACTURERS** require Agents for London and Provinces to sell quality Bath Crystals on good commission. When replying, please state territory worked at present, lines handled and age to 332/156, Office of this Paper.

**QUALIFIED Pharmacist** required by Manufacturer for short period for experimental work. 12/33, Office of this Paper.

**REPRESENTATIVE** for London, to call on Chemists, wanted by Manufacturers of a well-known advertised Proprietary line; only gentlemen of highest integrity need apply; car and first-class experience essential; good salary, commission, and excellent prospects for the right person. 331/137, Office of this Paper.

**REPRESENTATIVE**, for well-established House, to call upon Hospitals, Nursing Homes and Medical men in London, South of the Thames, and South-Eastern Counties; applicants should state age, give full particulars of past experience, whether any connexion, and if car available for travelling. 332/161, Office of this Paper.

**REPRESENTATIVES** (part-time) required to work Chemist Sundries; good money can be earned by men with connexions in the following counties: Oxford, Bucks and Beds; Essex, Suffolk and Norfolk; Liverpool and Manchester, Northumberland and Durham; Northern Ireland. Write 332/168, Office of this Paper.

**REPRESENTATIVES** to call upon Chemists for important Wholesale Distributors marketing well-known branded articles; good salary and allowances; excellent prospects and permanency for right man with connexions. Full particulars, with previous experience, to P.C.B. 289/26, Office of this Paper.

**TRAVELLERS** with established connexion amongst Chemists and Hairdressers to carry non-competitive lines of Hygienic Rubber goods; liberal commission. Full particulars, ground covered, etc., Arisa Rubber Co., Devoushire Works, Dukes Avenue, London, W.4.

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**ASSISTANT**, Unqualified (39); excellent Dispenser, Counterman and Window-dresser; abstainer; highest credentials; free. T. S., 18 Wharfedale Gardens, Thornton Heath, Surrey.

**ASSISTANT**, Unqualified (34), reliable Dispenser, good Salesman, excellent all-round experience, desires post with high-class firm. 11/7, Office of this Paper.

**AT liberty**, highly recommended Senior, Unregistered; wide experience (age 44; height 6 ft.); College trained. 12/19, Office of this Paper.

**BIRMINGHAM.**—Experienced lady Assistant, Unqualified, requires permanency; reliable Dispenser; reasonable hours; salary £2 to £2 10s. per week. 11/4, Office of this Paper.

**CHEMIST**; good all-round experience, desires permanency; disengaged towards the end of September. M.P.S., 22 Oswestry Road, Oxford.

## NAMES AND ADDRESSES

When sending advertisements for any of the columns of this Supplement, advertisers—as a guarantee of good faith and not necessarily for publication—should always give their names and addresses. It sometimes occurs that this rule is not adhered to and delay and disappointment ensue. Strict attention to this detail will be appreciated.

**C**OMPETENT, energetic Manager (28), married, no children, requires responsible post outside London; South or West preferred; free one month; living accommodation if available; good references; London and provincial experience. 11/10, Office of this Paper.

**C**ONSCIENTIOUS experienced Assistant (25), referred Forensic, requires position, view to permanency, as Qualified early October; free September 23; London or suburbs; Wholesale or Retail. 12/1, Office of this Paper.

**J.** L. HOLDEN, Walton-on-Naze, having disposed of his business, can confidently recommend Mr. W. Tidswell, M.P.S., to any firm requiring a capable Manager or Assistant; all-round experience, good-class trade. W. Tidswell, M.P.S., Arnold Cottage, Victoria Road, Walton-on-Naze.

**L**ADY Dispenser (Hall), thoroughly experienced in all the work, including Photography, requires post with good-class Chemist; free September 17. 12/3, Office of this Paper.

**L**ATE or all-night duty; Qualified; excellent West End experience; highest references. 12/24, Office of this Paper.

**M**ANAGING Superintendent, M.P.S., Optician, O.B.A.C., where Junior staff kept; thorough; reliable (62). 12/26, Office of this Paper.

**M.P.S.**, Experienced; shortly ending locum engagement, as Superintendent or locum; after August 20; reliable. 12/39, Office of this Paper.

**M.P.S.** (26), tall, good all-round experience, seeks new post late October; present post 3 years as branch manager. 11/12, Office of this Paper.

**P**ART-TIME Lady Assistant Dispenser seeks post; Hall Certificate; experienced; Brighton or near. Shalom, 89 Ditchling Road, Brighton.

**P**ERMANENCY desired by middle-aged Unregistered gentleman of exceptional experience; locality immaterial; satisfactory services assured; excellent references. 12/28, Office of this Paper.

**P**HARMACIST, linguist, extensive London and Continental experience; travelled; well-informed; seeks permanency in a really good-class business, where personality and address are appreciated. Vitex, 332/173, Office of this Paper.

**P**HARMACIST, varied and up-to-date experience; Management, Buying; offers services in any Pharmaceutical capacity offering prospects. "Pharmacist," 118 Durham Road, Feltham, Middx.

**Q**UALIFIED, desires part-time, London; free weekdays, 4.30 p.m. and all day Saturday; good all-round experience, including West End; excellent references; tall, married, good appearance. 332/164, Office of this Paper.

**Q**UALIFIED Pharmacist and Optician, well educated, middle-aged, married, desires Dispensing post or Branch Management with scope for Optical work; London preferred; free in September. Pharmacist, 17 Old Kent Road, London, S.E.1.

**Q**UALIFIED (32); experience of every branch of Retail Pharmacy, 10 years as Manager; Advertising experience and control of staff. 12/5, Office of this Paper.

**Q**UALIFIED (40), reliable, experienced; over 20 years Retail; London or South preferred; free one month; moderate salary. Austin, 45 Eltham Hill, Eltham, S.E.9.

### PRICE LISTS, TRADE CIRCULARS, SAMPLES, AND PRINTED MATTER

can in no case be forwarded, the Box numbers being intended exclusively for specific answers to particular advertisements. The Publisher reserves the right to open and refuse to forward any communications received which he may consider contrary to this rule.

**U**NQUALIFIED married gentleman, experienced, competent, desires permanency, Assistant, Manager Drug Stores or Clerical work; Wales preferably; excellent references. 4/7, Office of this Paper.

**U**NQUALIFIED (26) requires post in London; excellent references; London experience. Williams, 71 Chelverton Road, Putney, S.W.15.

**Y**OUNG lady desires post, good-class London Pharmacy; excellent experience, Dispensing and Counter; good references. M., c/o Clark, Chemist, Dorchester.

**Y**OUTH (16), disengaged, desires post as a Junior Assistant in Brighton; some experience. D. Plecer, 36 Buckingham Road, Brighton.

### LOCUMS SEEKING ENGAGEMENTS

**A**S Locum or permanent (52); thoroughly experienced Qualified Chemist; good references; free 22ud. "Chemist," 45 Broadwater Avenue, Letchworth.

**C**HEMIST, Locum or permanency; experienced; recommended; disengaged September 26; London or Provinces. Chemist, 24 Hillside Crescent, South Harrow, Middx.

**L**OCUM, free August 27; excellent experience and highest references; Unqualified; any distance. A., 10 Osborne Grove, London, N.4.

**L**OCUM, M.P.S. (24), disengaged August 26; all-round Retail and Hospital experience; moderate salary. 12/51, Office of this Paper.

**L**OCUM or Temporary Assistant, male; free August 29; abstainer; excellent references; South only. Chemist, 42 Alexandra Road, Southampton.

**L**OCUM, Qualified, free September 5, would consider position as Manager, etc.; Leeds or Bradford districts; fully experienced. Francis B. di Menna, c/o Mr. Clarke, Chemist, Epworth, near Doncaster.

**Q**UALIFIED (60), active; registered O.B.A.C.; Locum or permanency; at liberty September 12; absolutely reliable; good refractionist. Ellis, c/o Jones, Chemist, Castle Road, Bedford.

### WHOLESALE

**A**DVERTISER (29), well educated, is open to represent firm of repute on a commission basis; excellent connexion with all Chemists and Departmental Stores in Lancashire and Cheshire territory. 10/1, Office of this Paper.

**A**DVERTISER (29), well educated, seeks opening, any capacity, in Wholesale; 14 years' Retail Pharmacy experience; thorough Veterinary and Photographic knowledge. Cooper, Penshurst, Pevensy, Sussex.

**C**APABLE, energetic, conscientious Registered Pharmacist (age 32), with 13 years' Retail experience, requires responsible executive post; sales propaganda department of Wholesale house preferred, but not essential. 250/14, Office of this Paper.

**C**HEMIST requires part-time employment, Analysis, Matchings, Research; experienced all branches; own equipment available if required. 11/6, Office of this Paper.

**E**XPERIENCED Representative (37), connexion amongst Chemists, Co-ops., Stores, Derbys., Notts, Yorks, the North, seeks permanency. 12/14, Office of this Paper.

**G**ENT. (29) desires position with firm of repute as Representative; excellent education and references; good appearance and personality; connexion in Midlands; own car. 12/9, Office of this Paper.

**M**ANUFACTURER of Toilet and Cosmetic Preparations seeks post; accustomed to buying, control of stock, dispatch and general factory routine. 12/2, Office of this Paper.

**P**ILL and Tablet Maker and Coater; 11 years' experience London and the North; able to take charge. 332/162, Office of this Paper.

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**S. E. HACKETT, 23 July Road, Liverpool**

**QUALIFIED (22)**, new Syllabus, invites offers for representative work with prospects; free September 10; 5 years' Retail experience. 12/36, Office of this Paper.

**TRAVELLER**, with established connexion in the North, will consider other non-competitive lines on agency basis. 12/46, Office of this Paper.

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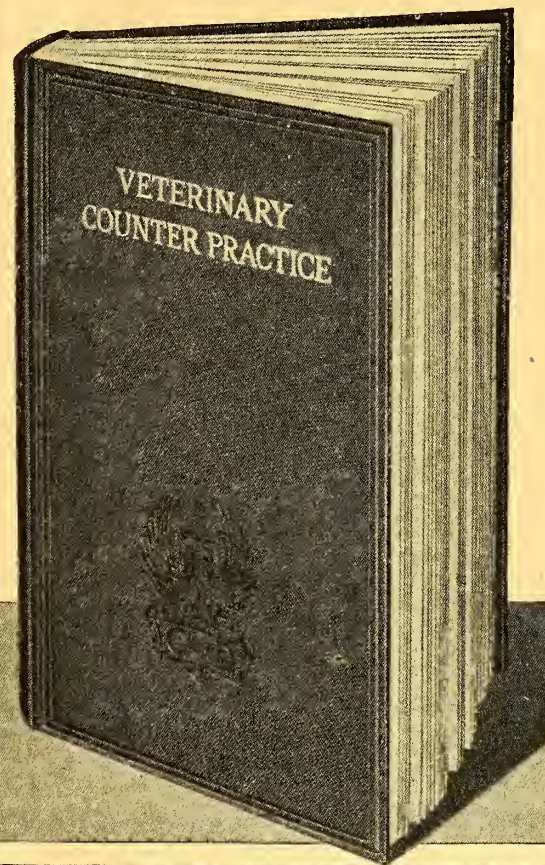
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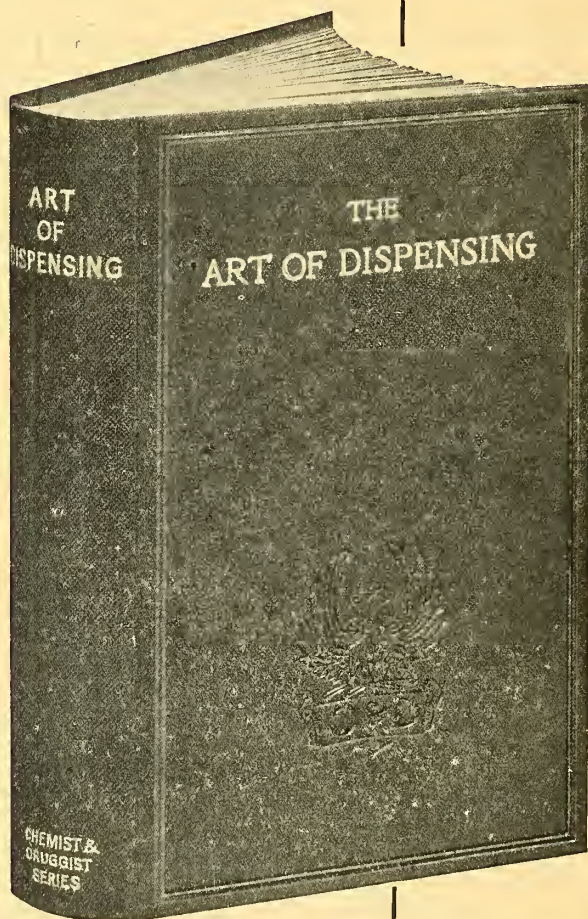
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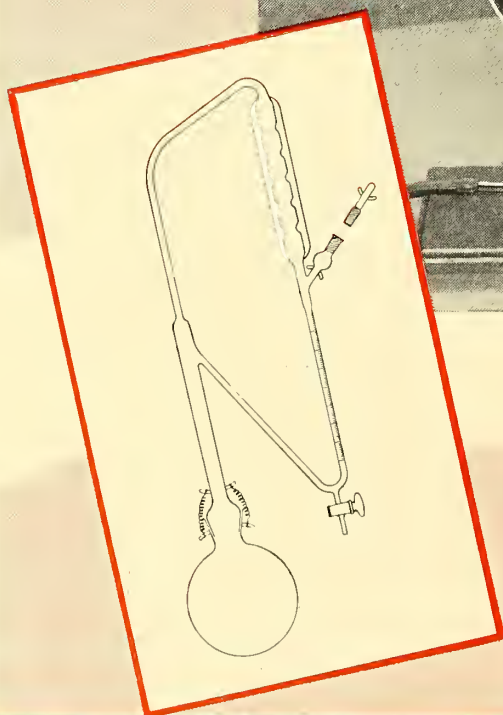
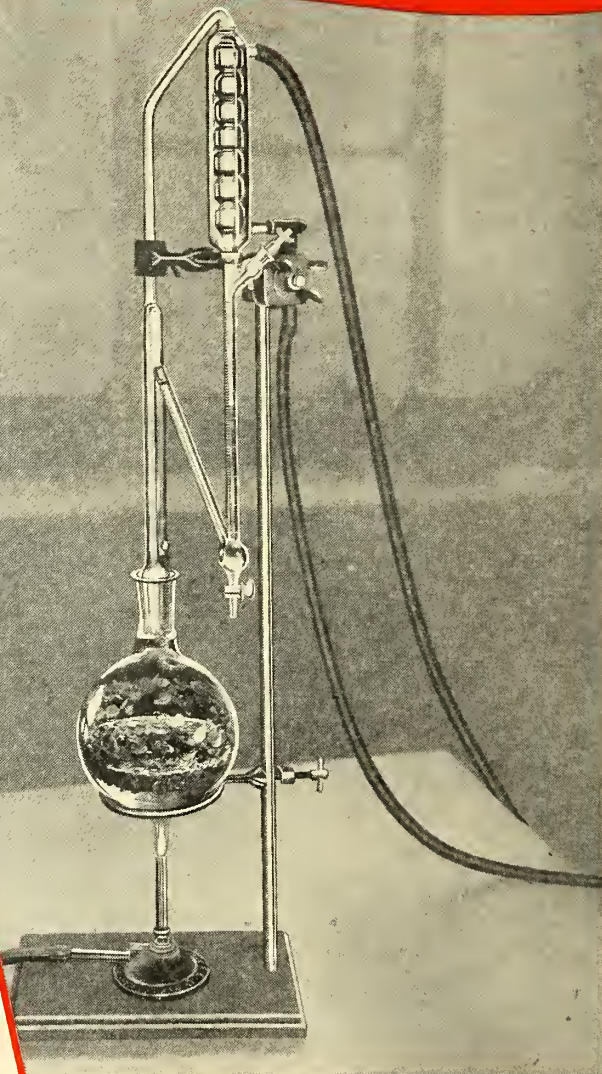
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